

UMASS/AMHERST



312066005066215

# INTERNATIONAL HARVESTER



---

---

## CATALOGUES

---

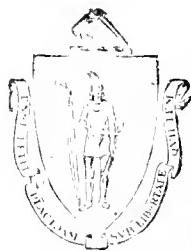
---

S  
677  
15

BOOK FOR THE

LIBRARY

OF THE



MASSACHUSETTS  
AGRICULTURAL  
COLLEGE

SOURCE 1 S  
677  
IS

FEED GRINDERS  
KNIFE GRINDERS  
BINDER TWINE  
THRESHERS  
STONE BURR MILLS  
GRAIN DRILLS  
CREAM SEPARATORS  
OIL AND GAS ENGINES  
MANURE SPREADERS  
FERTILIZER SOWERS  
TRACTORS  
WAGONS AND TRUCKS

INTERN

OF AMERICA

on on these  
use or write

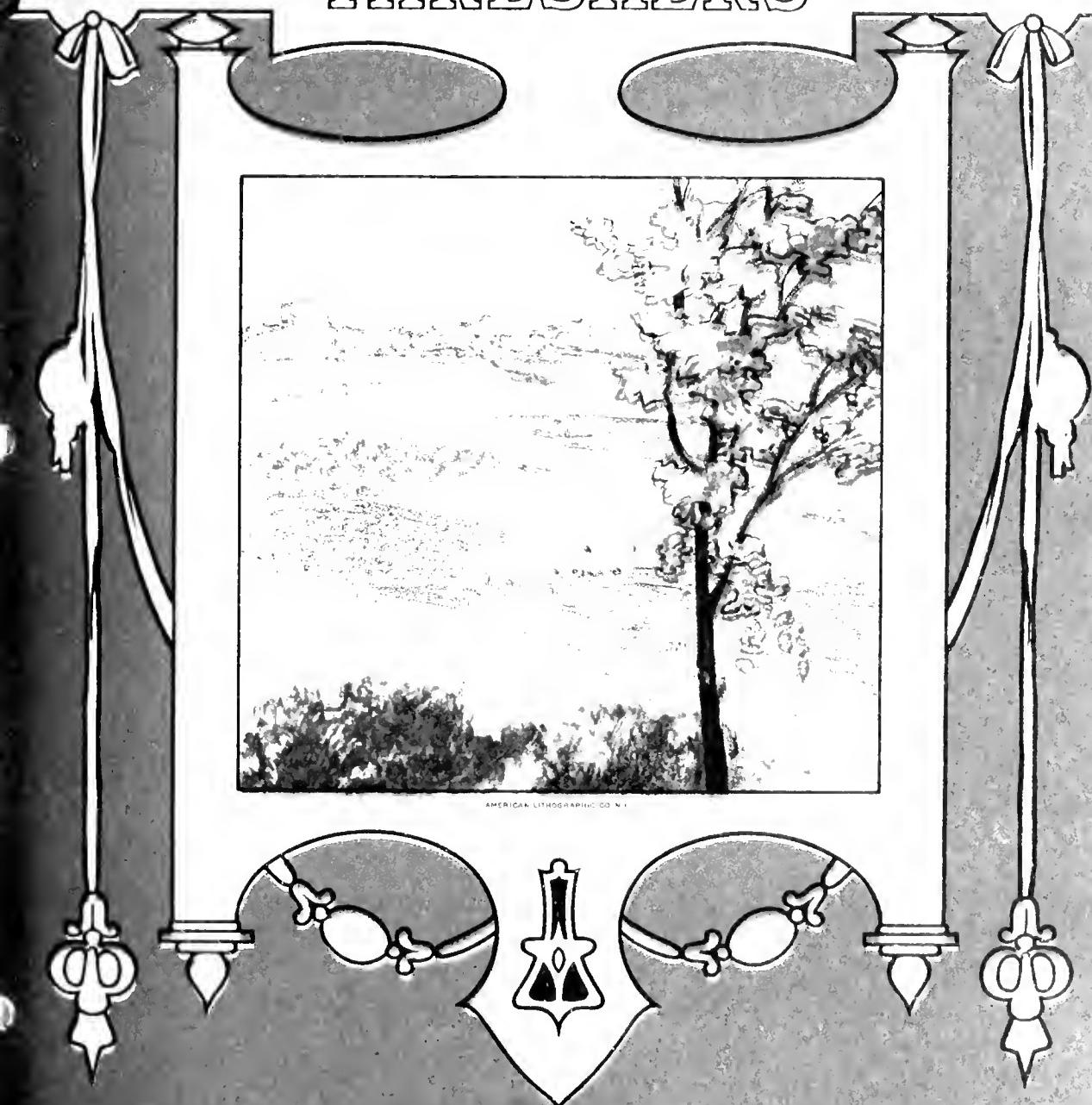




# NEW RACINE & NEW BELLE CITY THRESHERS



AMERICAN LITHOGRAPHIC CO. N.Y.





## IHC LINE

### GRAIN MACHINES

BINDERS  
HEADERS  
REAPERS  
HEADER-BINDERS  
**HAY MACHINES**  
MOWERS  
RAKES  
HAY PRESSES  
SWEEP RAKES  
HAY LOADERS  
STACKERS  
TEEDERS  
SIDE DELIVERY RAKES  
COMBINED SWEEP RAKES  
AND STACKERS

### CORN MACHINES

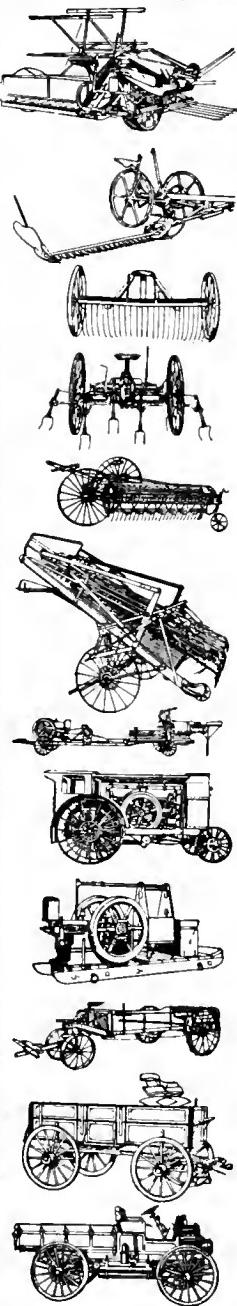
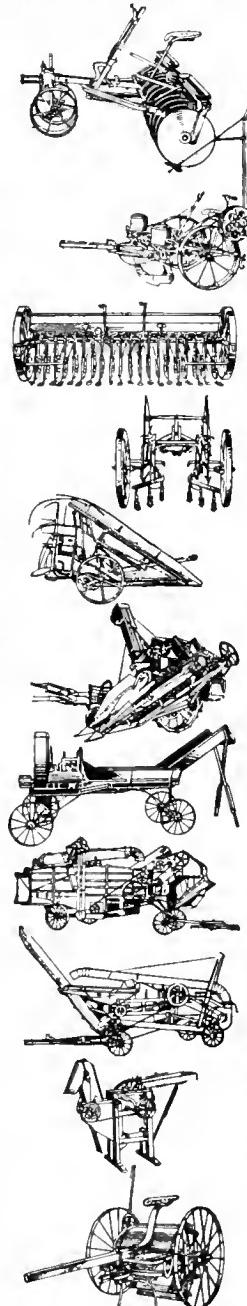
PLANTERS  
PICKERS  
BINDERS  
ENSILAGE CUTTERS  
CORNSTALK RAKES  
STALK CUTTERS  
SELLERS  
CULTIVATORS  
HUSKERS AND SHREDDERS

### TILLAGE

DISK HARROWS  
CULTIVATORS  
SPRING-TOOTH HARROWS  
PEG-TOOTH HARROWS  
COMBINATION HARROWS

### GENERAL LINE

MOTOR TRUCKS  
FEED GRINDERS  
KNIFE GRINDERS  
BINDER TWINE  
THRESHERS  
STONE BURR MILLS  
GRAIN DRILLS  
CREAM SEPARATORS  
OIL AND GAS ENGINES  
MANURE SPREADERS  
FERTILIZER SOWERS  
OIL TRACTORS  
FARM WAGONS AND TRUCKS



NEW RACINE  
AND  
NEW BELLE CITY  
THRESHERS



1119E

SOLD BY  
INTERNATIONAL HARVESTER COMPANY OF AMERICA  
(INCORPORATED)  
CHICAGO U S A

# NEW RACINE AND NEW BELLE CITY THRESHERS

## New Racine Threshers

**Simplicity the Keynote of New Racine Threshers:** The simplicity of the outfit is one of its strong points, while at the same time the requirements of the individual farmer are met in every respect. The New Racine is light, of good capacity, and has comparatively few parts to get out of order.

**Of a Practical Design:** It is equipped with a cylinder that insures thorough and complete threshing of all kinds of grain; strong concaves, straw racks of a design which insures satisfactory separation, and a cleaning apparatus which cleans thoroughly.

**Runs Smoothly and Will Wear Long:** The New Racine thresher runs easily and smoothly, due to a minimum of friction during operation. All the shafts have long bearings and babbitted self-aligning boxes with ample oiling facilities.

**Air-Dried Lumber Used in Construction:** The lumber used is thoroughly air-dried. Air-dried lumber is the only kind that should ever be used in constructing a thresher, as kiln-dried lumber will stand the elements for only a short time. All wood parts of the New Racine thresher subject to wear are lined with sheet steel.

**Capacity:** The capacity of a thresher depends to a great extent on the kind and quantity of power used; yield of grain as compared to the quantity of straw; kind, size, and condition of straw, and skill of the operators. The yield of grain and the size and condition of straw vary greatly for different localities, and even in the same locality in different seasons. The table below gives the average capacity per hour of the different sizes of New Racine threshers in average conditions of straw and grain.

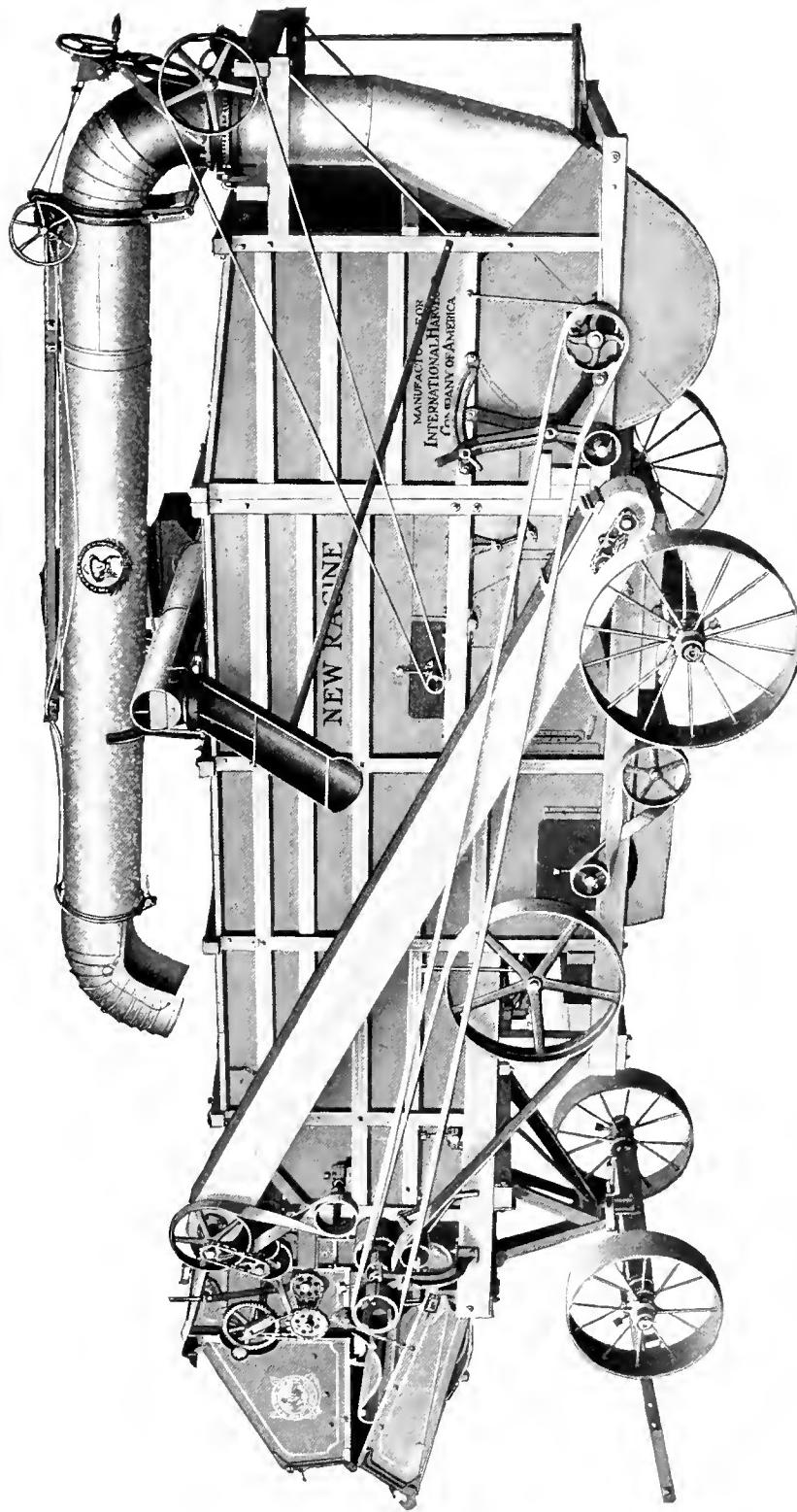
Thresher Sizes	24x40"	28x48"	32x52"	36x56"
Wheat .....	40 to 60 Bu.	60 to 120 Bu.	75 to 150 Bu.	90 to 180 Bu.
Oats .....	90 to 180 "	125 to 250 "	175 to 300 "	225 to 360 "

**Adaptable for Pea and Bean Threshing:** The New Racine thresher, with only a few changes, can be used for threshing peas or beans. The cylinder speed is reduced about one-half and special pulleys, concaves and screens are used. These parts are not furnished with the regular machine.

**Clover Attachment:** The clover attachment consists of three special concaves, each having three rows of corrugated teeth, also a special clover sieve.

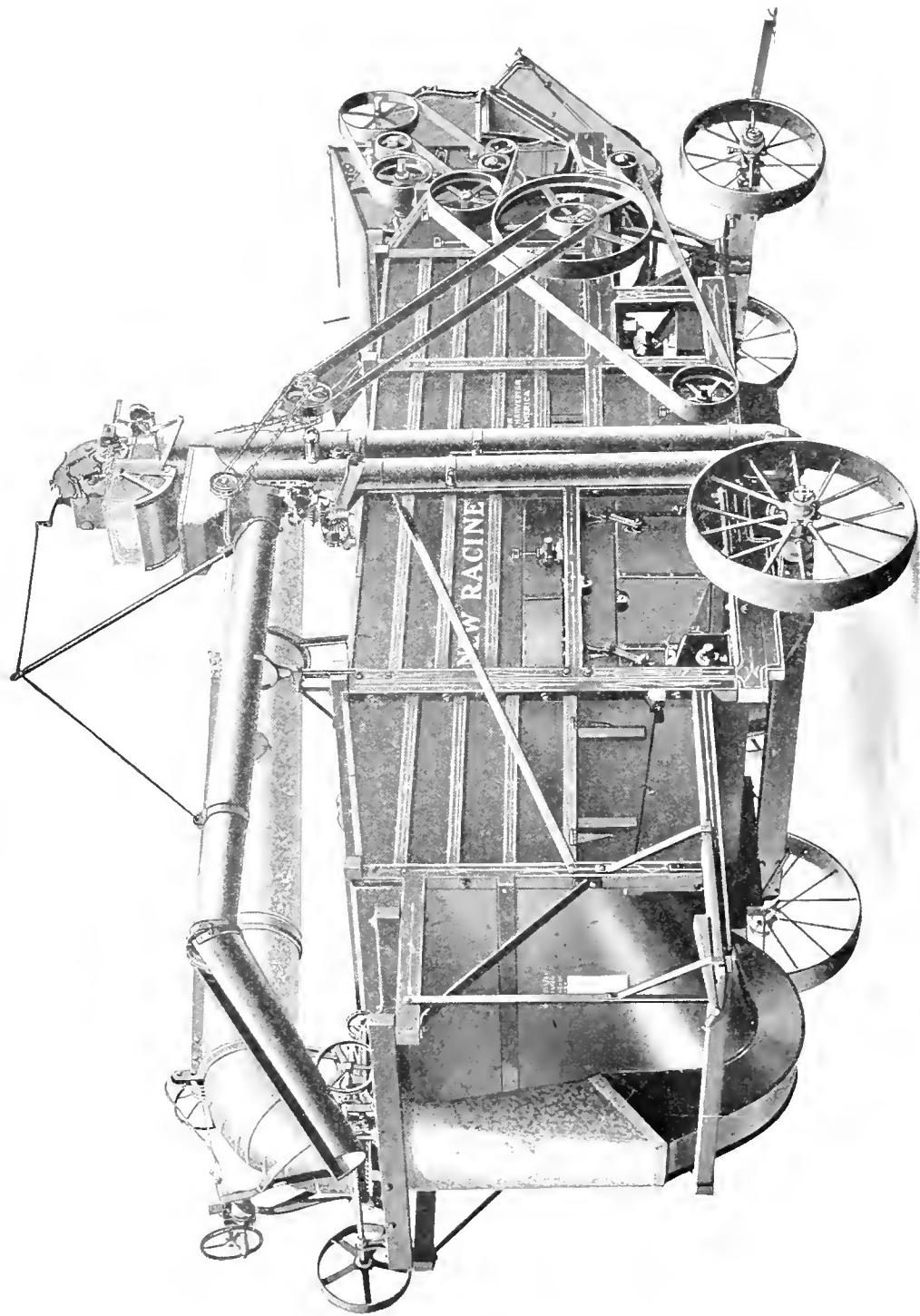
**How to Order a New Racine Thresher:** Be sure to give the size wanted; also, if an 18 or 24-foot folding rake stacker, grain elevator, bagger, weigher, wind stacker with telescoping pipe, hand feed attachment, self-feeder, or brake, is desired. Be very careful to state clearly the speed of the engine and the size of the drive pulley to be used in operating, so that the thresher can be properly equipped with the correct size of pulley to insure the proper speed of the threshing cylinder.

# A Thresher Second to None in Point of Service



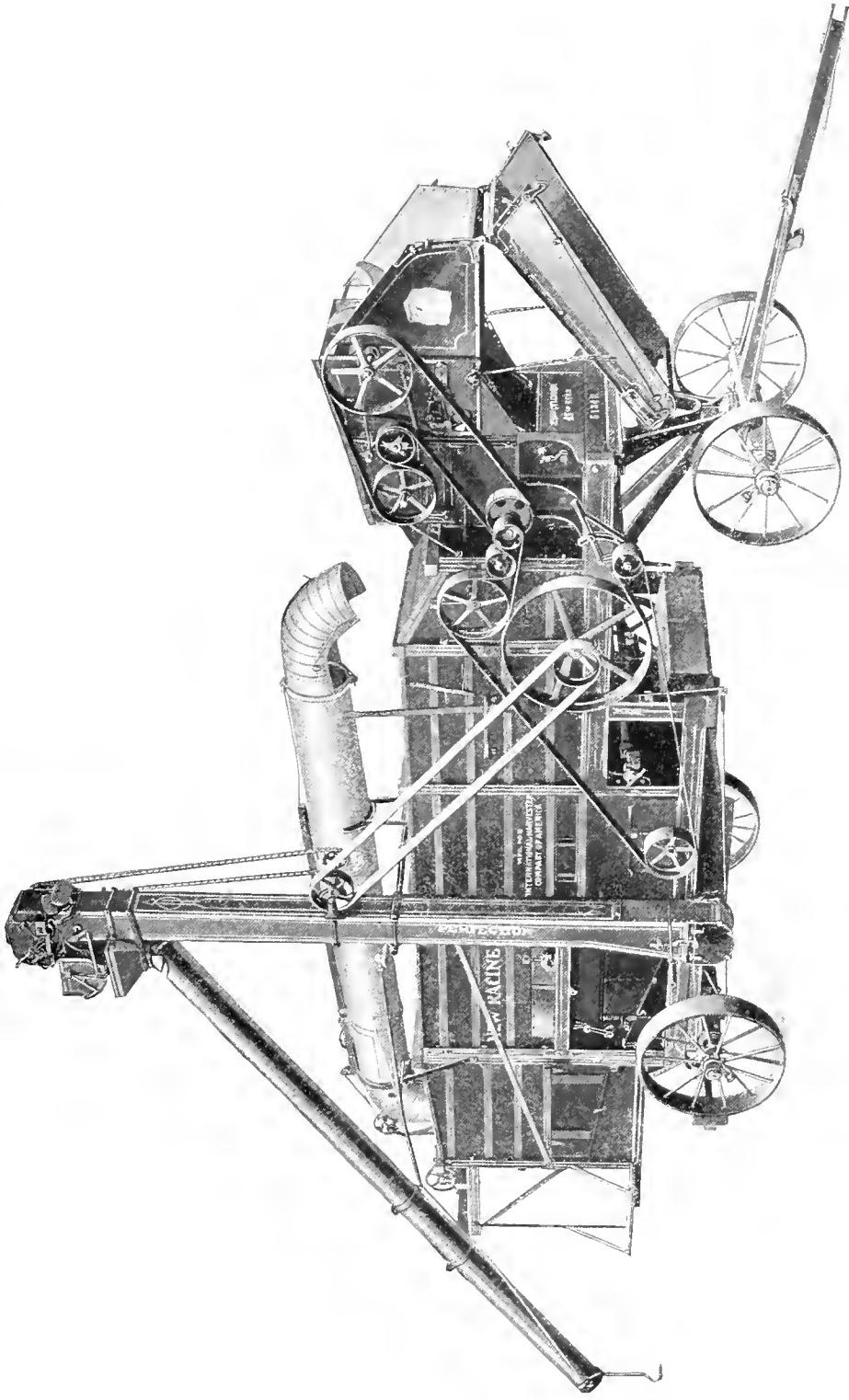
New Racine 28x48", 22x52", and 36x56" thresher, equipped with feeder, wind stacker and weigher with cross conveyor. Ready for transportation

# The New Racine is Equipped to Handle Large Threshing Operations



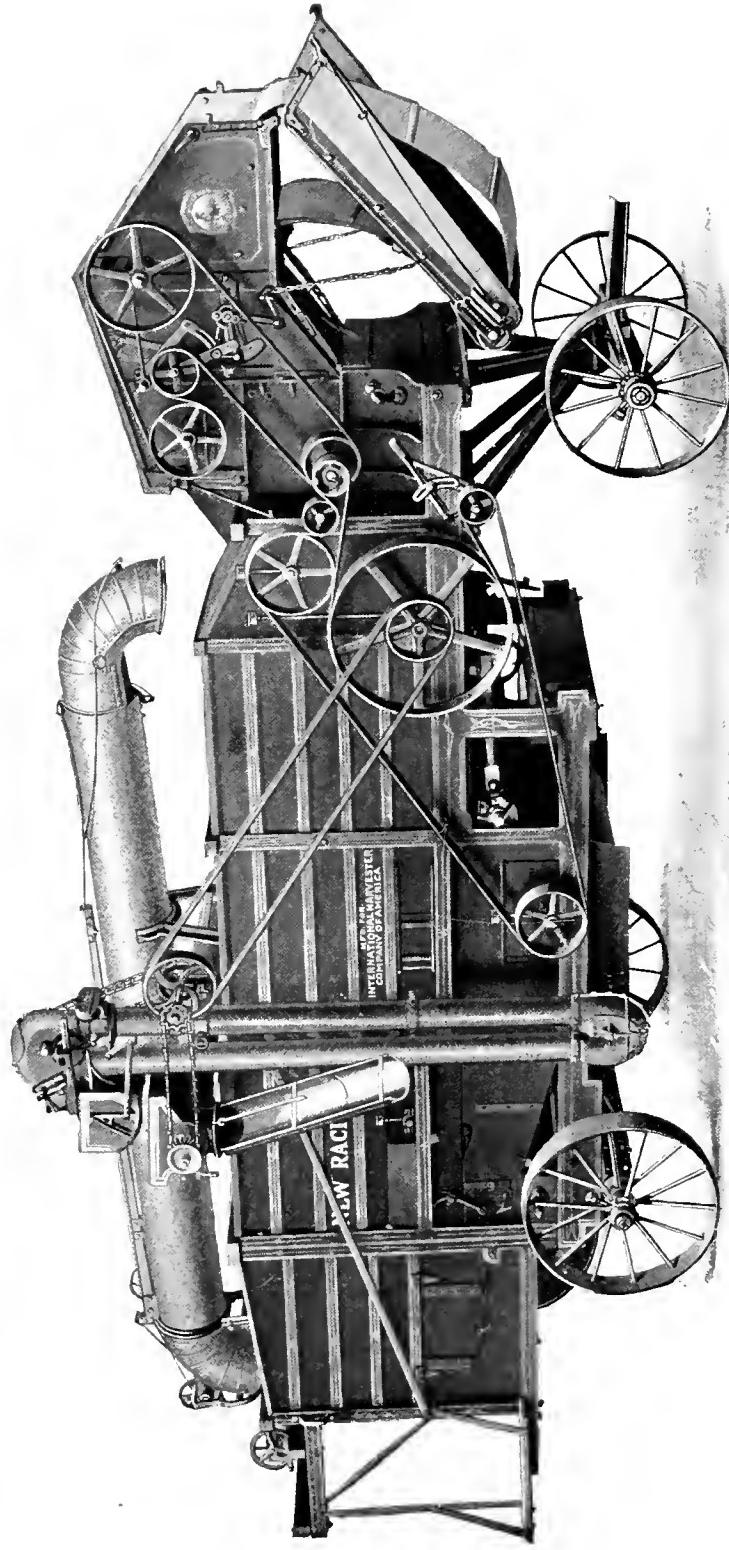
New Racine 28x48", 32x52" and 36x56" thresher, equipped with feeder, wind stacker, and weigher with swinging conveyor. Ready for transportation.

# An Ideal Outfit for the Western Grain Grower



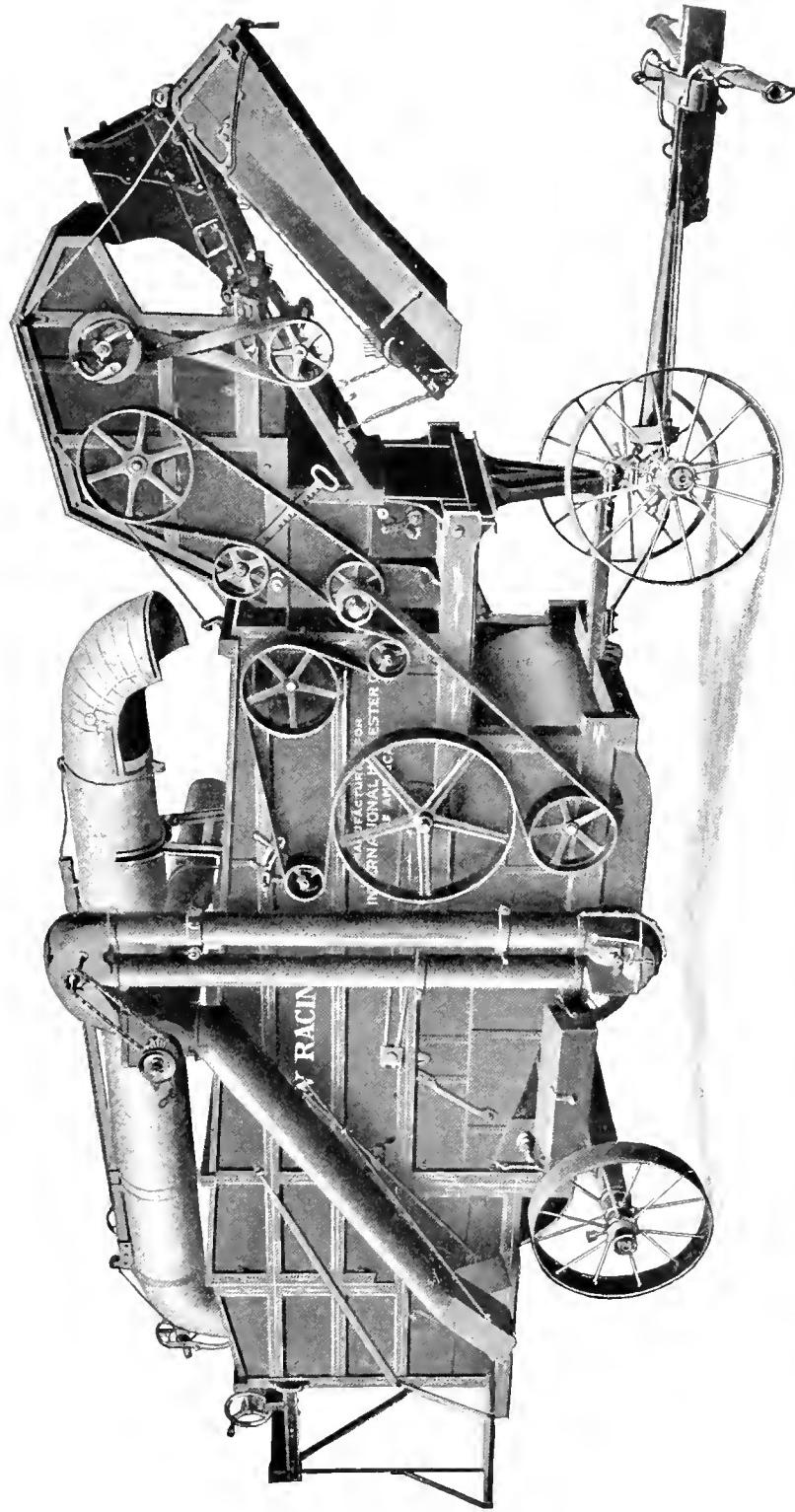
New Racine 28x48", 32x52", and 36x56" thresher, equipped with feeder, wind stacker, brake, and Perfection weigher. Ready for transportation.

# The New Racine Handles Big Crops Quickly and Economically



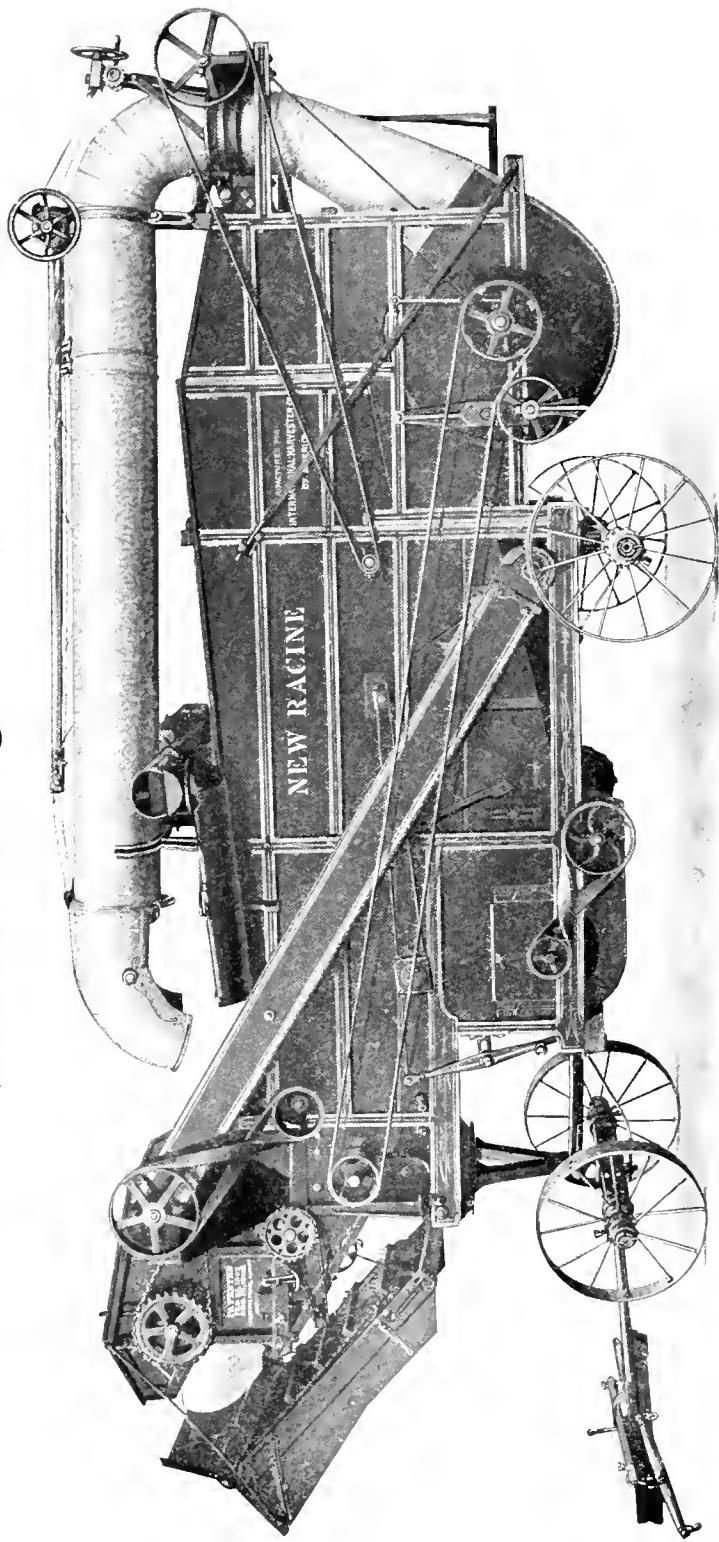
New Racine 28x48", 32x52" and 36x56" thresher, equipped with feeder, wind slacker, and weigher with stationary conveyor and wagon spout Ready for transportation

Also Made in Medium Sizes for Smaller Operations



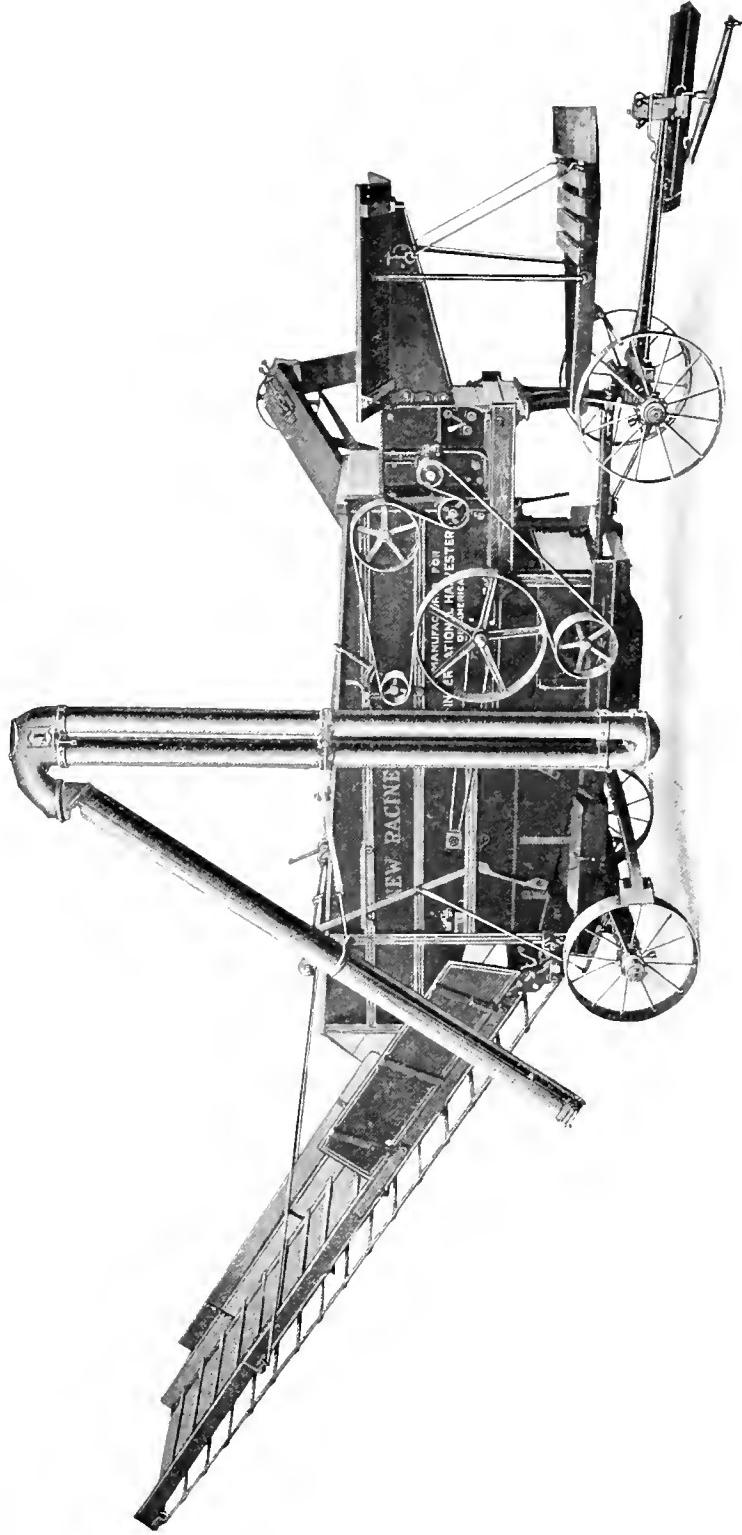
New Racine 24x40" thresher, equipped with feeder, wind stacker, and loader with cross conveyor and bagger. Ready for transportation

An Ideal Thresherman's Outfit for Hilly Regions  
Because of Light Weight



New Racine 24x40" thresher, equipped with feeder, wind stacker, and weigher. Ready for transportation

# The New Racine Can Be Adapted to Pea and Bean Threshing



New Racine 24x40" thresher, equipped with hand feed, folding rake stacker, brake, and long grain elevator

# ■ NEW RACINE AND NEW BELLE CITY THRESHERS ■

**Main Frame is Strongly Built to Withstand Twisting Strains:** The frame of the New Racine is specially designed and substantially built to withstand the heaviest strains to which it will be subjected. The sills are wide and thick. The posts are set at the points of greatest strain and the thresher is well braced crosswise. All posts, sills, caps, and rails have snugly fitted mortise and tenon joints, secured by strong joint bolts. The lining of  $\frac{7}{8}$  inch boards throughout the thresher adds greatly to its durability.

The frame of the New Racine is offset, insuring maximum strength without making the machine too clumsy or too heavy for moving readily from place to place. By using an offset sill in framing, much the same effect is arrived at as in bridge construction where different lengths are put together to make a truss.

**Cast Iron Brackets Strengthen Frame:** All cross-beams are rigidly secured to the main frame by means of strong cast iron brackets. There is consequently no chance for the frame to sag, no matter how much strain may be put on it while the thresher is in operation.

**Deck Sheds Water Quickly:** The deck has the necessary pitch to shed water quickly and the interior parts are therefore protected and swelling of the wood stock prevented. The interior is very easy of access, as the three covers on the machine can be quickly removed. Only the best grade of selected air-dried and seasoned hardwood lumber is used in the construction of the New Racine thresher.

**Trucks:** The front trucks are attached to the malleable iron bolster by means of a ball-and-socket connection. The bolster in turn is rigidly bolted to the sills of the frame. Heavy channel steel braces forestall any possibility of the front trucks buckling.

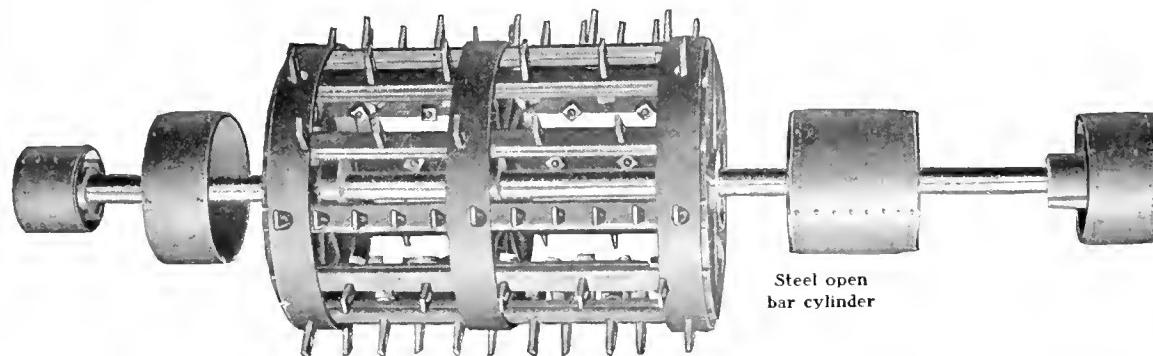
**Channel Steel Axles:** All axles used in the New Racine thresher are of the best quality of bridge channel steel and are strong enough to easily sustain the full weight of the thresher with all its attachments.

The thresher is very easily turned in a small space as the offset frame allows the front axle to cramp around under the machine.

**Wide Rimmed Wheels:** The steel wheels have wide rims which permit easy going over soft roads or ground. The round spokes are set staggered and riveted into the hub and rim. Hard oilers have been provided.

**Steel Open Bar Cylinder:** The steel cylinder is of the open bar type which is generally accepted as the best cylinder to use in large capacity threshers. The tooth bars are securely connected to the heads of the cylinder.

The cylinder shaft is made of heavy machine steel, and runs in extra long bearings of the ball-and-socket self-aligning type. The best quality of frictionless babbitt metal, accurately scraped and snugly fitted to the shaft, insures smooth and easy running. Hard oilers of large size with screw covers are used for lubricating purposes. The cylinder is supported within a heavy iron frame which is securely bolted to the framing timbers and sill of the thresher body. The iron sides of this frame are strongly braced by steel rods.



Steel open  
bar cylinder

# NEW RACINE AND NEW BELLE CITY THRESHERS

**Cylinder Diameters and Speeds:** The 24x40" thresher is equipped with a threshing cylinder 18 $\frac{1}{2}$ " in diameter, while the 28x48", 32x52", and 36x56" machines have a cylinder 22 $\frac{1}{2}$ " in diameter.

The cylinder speed for the 24x40" size should be between 1,275 and 1,300 R. P. M. The 28x48", 32x52", and 36x56" sizes, should have a cylinder speed of from 1,075 to 1,100 R. P. M. When these speeds are closely followed, the machine will do its best work.

**Steel Teeth Combine Toughness and Hardness in the Highest Degree:** The cylinder teeth in the New Racine are made from a special grade of steel, and without being brittle, are sufficiently hard to withstand successfully all wear and hard work to which they may be subjected. They are secured to the tooth bars by nut and lock spring washers and the holes fit the shanks of the teeth perfectly.

To insure easy feeding, proper attention has been given to the angle at which the concaves are set and to the shape of the teeth. Easy feeding is always desirable, especially when the feeding is done by hand. The cylinder and concave teeth on the 24x40" New Racine thresher are interchangeable, being of one size and shape. The style of the cylinder teeth used in New Racine thresher cylinders are shown at the right.

The teeth on the three larger sizes—28x48", 32x52" and 36x56" are somewhat heavier and longer than on the 24x40" thresher. This is on account of the big quantities of grain which pass through the larger machines and their greater capacity. As can be seen in the illustration on the right, this tooth is heavier and thicker with a strong shoulder and an extra heavy shank. Note also the deep thread which permits an unusually secure fastening of the large square nut. The teeth and nuts are shown actual size.

The cylinder teeth on the larger sizes are interchangeable with the concave teeth on the same machines.

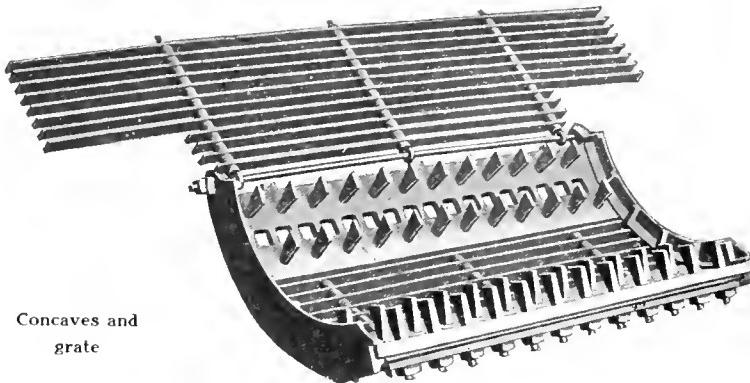
A tooth set is furnished with each machine.



This tooth is used on the cylinder in the 24 x 40" thresher

This tooth is used on the cylinder in three larger sizes

# NEW RACINE AND NEW BELLE CITY THRESHERS



Concaves and  
grate

**Concaves and Grate:** New Racine threshers are fitted with space for three concaves. All machines are equipped with two concaves filled with teeth and one without teeth, and with two steel concave grates. This equipment gives all the range that is necessary to thoroughly thresh the grain from the straw under various conditions. The concave teeth are of heavy design and are bolted securely, insuring strength and reducing the liability of breakage to a minimum.

minimum. Directly behind the concaves is a grate which extends rearward and upward under the beater. Here also large openings are made so that early separation can be accomplished. Nearly all of the grain is separated just back of the cylinder. By allowing a large grate area, much of the grain that would otherwise mix with the straw is saved.

**The Winged Beater has the Action of a Flail:** The condition of the straw after passing through the concaves is such that with proper handling the best results can be secured with the winged beater, which is one of the best and most effective devices known for its purpose. This type beater has shown a superior efficiency in securing quick results in all conditions and kinds of grain. It has a three winged concave construction and in action is similar to that of a flail as it beats the kernels of the grain down through the thin layer of straw onto the conveyor. The beater is set close to the cylinder teeth and in such a position as to diminish the possibility of loose straw wrapping or winding around the cylinder as is frequently the case where the beater is set at some distance from it.

**A Good Beater is Important:** The value of a good beater cannot be over-estimated. To give the best results it must be designed so that it will force the grain out of the straw and do it in the most rapid manner possible. In this respect the New Racine is well equipped.



The steel beater greatly increases the separating capacity of the New Racine

**Adjustable Check Flap Prevents Loss of Grain at Rear:** Just back of the beater is a sheet steel check flap to keep the stray kernels from being thrown out at the rear of the machine and to hold or retard the movement of dry and brittle straw. The size of the opening can be easily adjusted from the outside by simply raising or lowering this check flap.

**The Four Section Straw Rack Gives Four Breaks to the Straw:** The straw rack in the New Racine thresher is made in four parts, occupying the entire width of the

# NEW RACINE AND NEW BELLE CITY THRESHERS

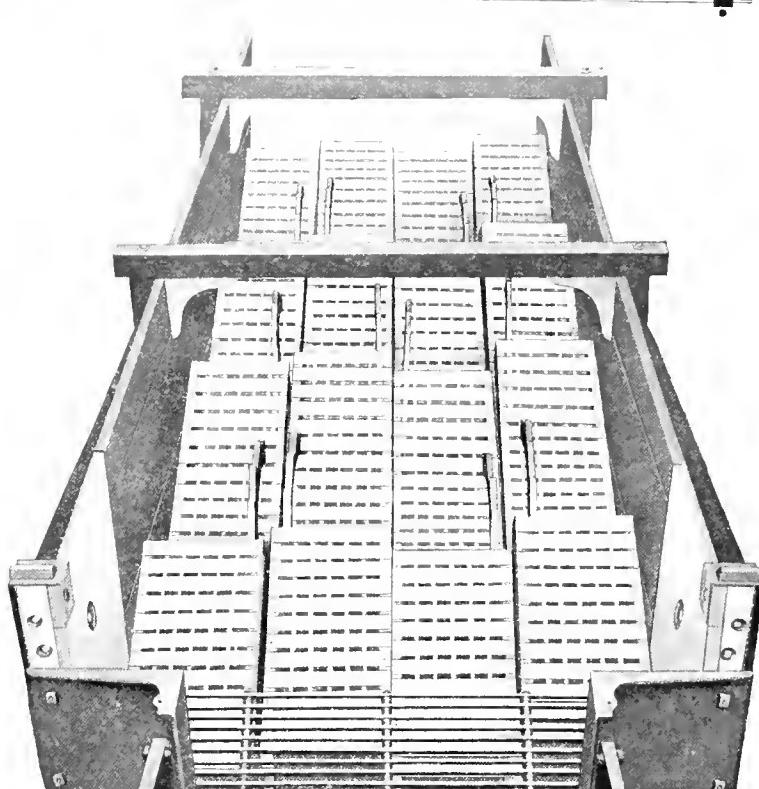
machine. It is set on two crank shafts, one at the front, and the other near the rear. The cranks are set on "quarters" or at an angle of 90 degrees from each other, and therefore, like the drivers of a locomotive, balance each other without having a dead center. A perfect balance is assured by this system. Each rack has an independent circular motion and as each is provided with four risers, the straw is given four breaks. As each rack is constantly moving at a different level from the other three, the straw not only moves forward but is also agitated sideways.

**A Lateral Break in the Straw Means Better Separation:** Many of the threshers now in use have no lateral break in the straw and consequently poor separation of grain and straw is the result. The straw rack in the New Racine is built to insure this lateral break. It excels in that it not only breaks the straw lengthwise, but also crosswise.

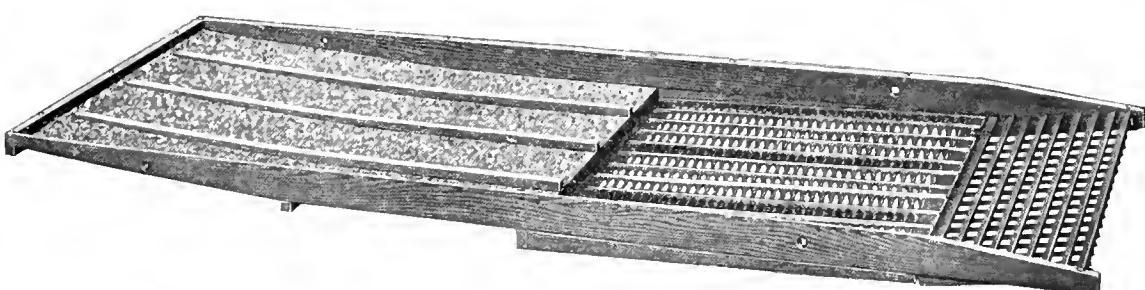
**Grain Conveyor and Return Pan:** The grain conveyor on the New Racine extends the full length of the machine from the front to the rear. Under the rear part of the straw rack and above the conveyor sieve, or chaffer as it is more commonly called, is the return pan.

The work of the return pan is to carry forward to the grain conveyor such straw, chaff, or grain as falls through the straw rack so that it may be acted upon by the blast from the fan. It also helps to separate and disintegrate the mass delivered to the grain conveyor.

**Clean Grain Assured:** While being carried along over the sieve and extension, the grain easily falls through, and the short straw and chaff pass on over it and out at the rear of the thresher.

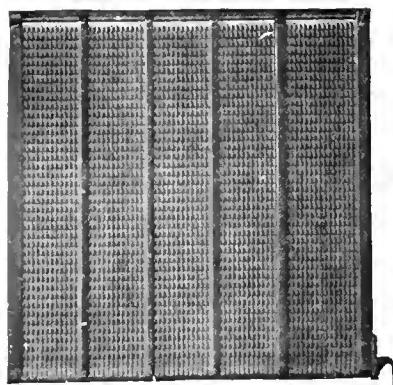


Interior view of New Racine thresher showing construction of straw racks, and the strong iron corner brackets connecting all cross beams to the main frame



Grain conveyor with plain chaffer sieve and slatted extension used in 24x40" thresher. On the three larger threshers the extension is corrugated

# NEW RACINE AND NEW BELLE CITY THRESHERS



Adjustable sieve used in the three larger thresher sizes

**Shoe has Good Movement:** The shoe on the New Racine has an end shake and a movement in perfect harmony with the grain conveyor and return pan. The shoe and return pan work against the conveyor, an even balance being thus assured. The cleaning of the grain is also improved and the capacity of the machine materially increased.

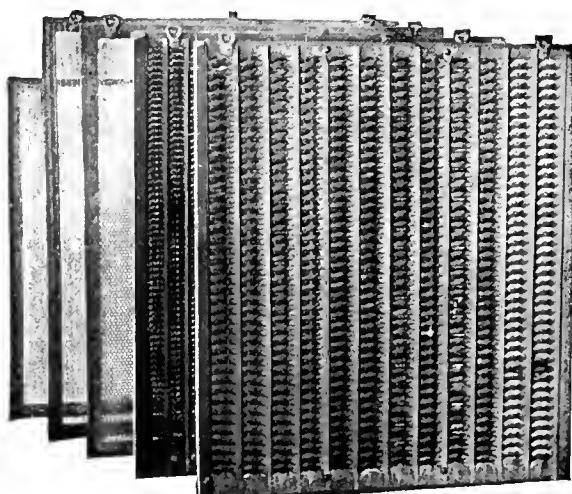
The conveyor or chaffer sieve on the 24x40" is of the Closz & Howard No-Choke type. On the three larger sizes it is of the Closz & Howard adjustable type. With the latter, the size of the opening can be adjusted while the thresher is still in motion by the simple movement of a lever.

The adjustable conveyor sieve is furnished at a slight additional cost.

**Sieves Do Their Work Well:** The sieves in the New Racine thresher are popular because of their large and thorough grain cleaning capacity, and the distinct saving of many dollars to the farmer each season.

The cleaning takes place when the blast from the fan is brought to bear on the grain through the openings in the sieve. By directing the blast from the fan through the sieves, the grain is cleaned in a more thorough manner than when any other system is employed, while at the same time, the possibility of blowing grain over into the tailings is greatly reduced. Should any grain be blown over the shoe sieves it is caught up by the tailings auger and elevator, returned to the cylinder, and again sent on its way through the thresher.

**Sieve Equipment:** The following sieves are regularly furnished with the New Racine 24x40" size,—1 No-Choke oat sieve, 1 No-Choke wheat, barley, or rye sieve, 1 perforated zinc wheat sieve, 1 wire flax sieve, and 1 wire shoe screen. Each sieve is 38 inches long and the full width of the machine. When so desired, special sieves can be supplied.



Sieves Regular equipment for 24x40"

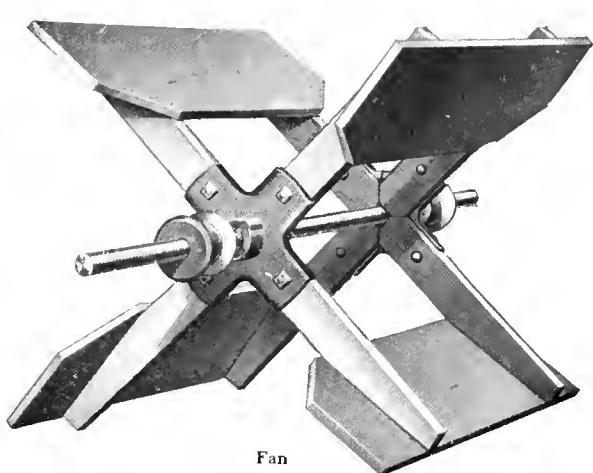
**Extra Sieves:** To the regular equipment of the larger sizes of threshers, two extra sieves for threshing flax, clover, millet, etc., will be added without extra charge if so desired by the purchaser. The purpose for which these sieves will be used should be clearly stated in the order, so that the correct sieves may be sent. Where more than two extra sieves are wanted, a charge is made.

With the 28x48", 32x52", and 36x56" sizes, the adjustable conveyor and adjustable shoe sieve are regularly furnished. A quick adjustment of the sieve can be made while the thresher is in operation. When an adjustable shoe sieve is desired in the 24x40" machine, it is furnished in place of the regular equipment.

# NEW RACINE AND NEW BELLE CITY THRESHERS

## **Underblast Fan and Adjustable Wind Blinds:**

To secure the best results in cleaning the grain in a thresher, it is absolutely necessary that the cleaning process would begin as soon as possible after entering the machine. Inasmuch as the fan on the New Racine thresher is of the underblast type and located in the front end of the machine, the cleaning of the grain begins at the proper point to secure the best results. On both sides of the fan are blinds for regulating the blast which can be easily adjusted while the machine is in motion. The wind-board which is also provided, can be easily adjusted. The blast from the fan catches the chaff and raises it up over the sieves to the rear end of the machine as soon as the grain and chaff fall from the conveyor and the return-pan under the rack. This serves to prevent the banking of chaff and grain in the shoe.



**Direct Power Transmission for Fan:** By means of a belt, the power for the fan is transmitted direct from the cylinder shaft. The fan shaft runs in well-babbitted boxes with long, self-aligning bearings.

**Quality Shafting and Bearings:** Good shafting and bearings, in a threshing machine are features which cannot very well be ignored. A great deal depends upon the quality and proper adjustment of these important parts.

The crank shafts in the New Racine are of forged steel, and turned in a lathe to an accurate size. The fan, beater, and auger shafts are of cold-drawn steel and the bearings for these different shafts are all of the self-aligning ball-and-socket type, well babbitted with non-friction metal, which reduces any possibility of heating from improper setting.

**Hard Oilers:** All bearings, where necessary, are provided with hard oilers, fitted with screw covers to keep out dirt and dust.

**Oak Tanned Leather Belts:** Only the best grade of oak tanned leather belting is used, this belting being of the proper width and thickness to transmit all the power necessary to give the required speed to the various parts of the machine.

**Covered Pulleys:** All pulleys having small diameters and fast speeds are covered with leather to give the belt a good grip and insure uniform speed of different parts.

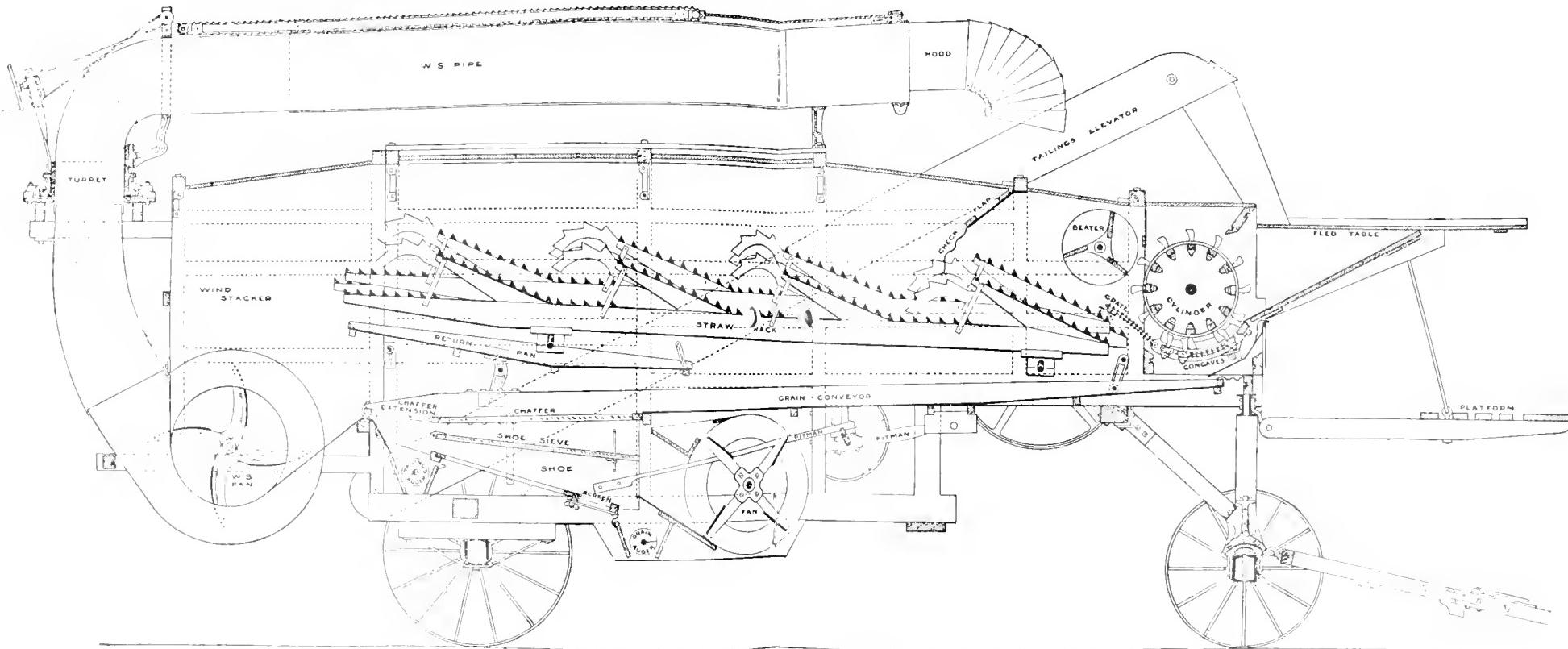
**Belt Tighteners adjustable during Operation:** Belt tighteners have been provided and so devised that the tightening can be done while the machine is in operation. They are also equipped with ample oiling facilities.



A New Racine thresher and our I H C oil tractor is a fine combination

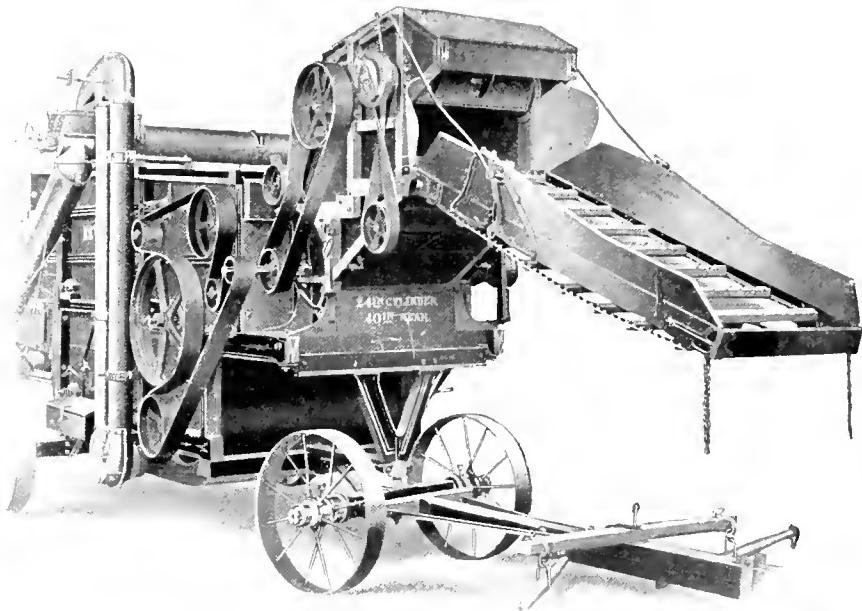


# Sectional View Showing Interior Working Parts of New Racine Thresher

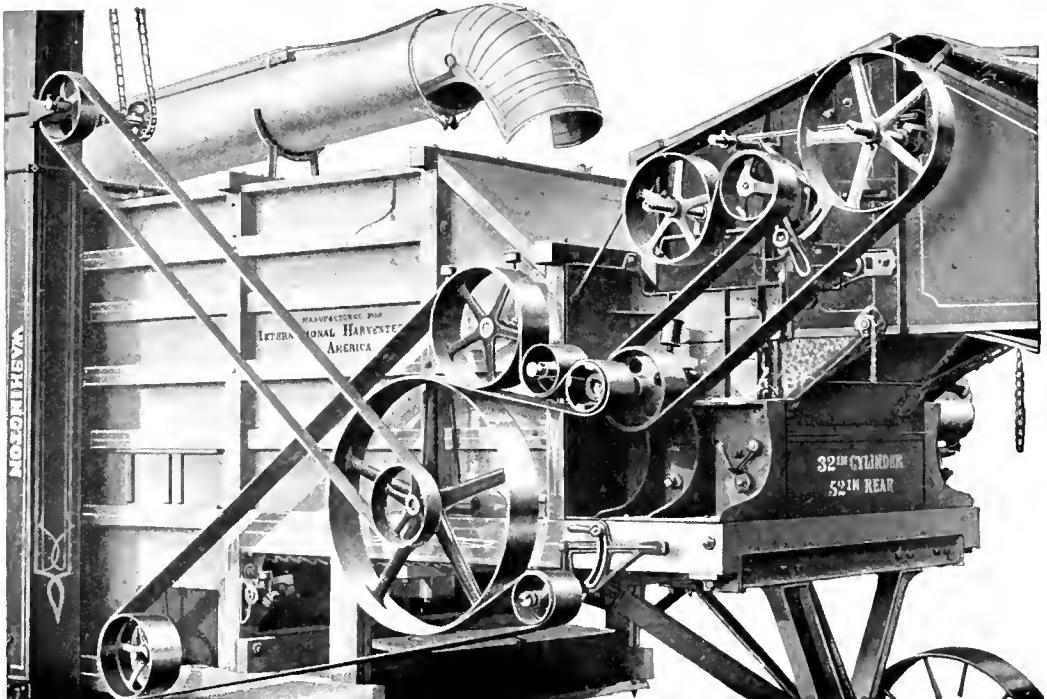


Representative of New Racine 28x48", 32x52", and 36x56" thresher sizes

# NEW RACINE AND NEW BELLE CITY THRESHERS



Showing belting arrangement on 24x40"



Showing belting arrangement on 28x48", 32x52", and 36x56"

# NEW RACINE AND NEW BELLE CITY THRESHERS

**Grain Register:** The grain register should be used when weigher, grain elevator, or bagger is not furnished with the machine. The grain is conveyed from the grain auger shaft direct into the half-bushel measure. Each bushel of grain is registered by the tallying device or register, which indicates up to 1,000 bushels. The box is made of hard wood, reinforced with heavy battens. It is furnished as an extra.

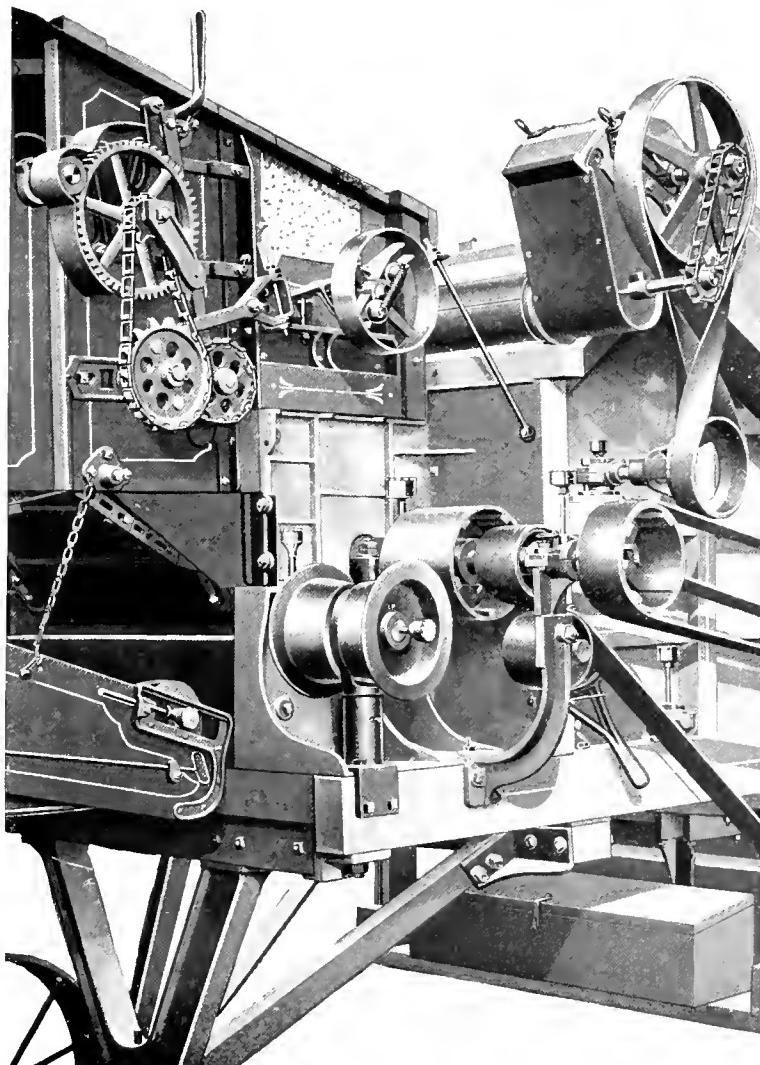
The half-bushel measures are of heavy gauge galvanized sheet steel, and graduated every one-fourth bushel. They are furnished on special order only.

**Folding Rake Stacker:** The New Racine can be equipped with an 18 ft. or a 24 ft. folding rake stacker, as ordered. The width is nearly the same as that of the machine. It is driven by a chain from the rear straw rack crank. This stacker can be very easily folded out of the way when not in use as it is hinged in the center for this purpose. When folded, it adds very little to the length of the machine. It can be raised or lowered with ease by means of a convenient windlass on the deck.

The apron consists of strong rubber belts to which wood slats 12 inches apart are securely riveted. Sideboards and a windboard are also furnished.

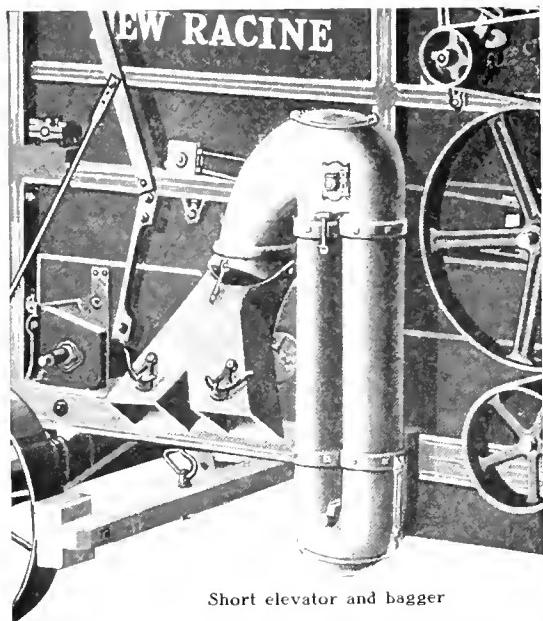
**Weigher with Swinging Conveyor:** This weigher has a very durable construction. Both elevator and conveyor are made of steel. The conveyor can be swung across the deck of the separator and be made to deliver grain into wagons on either side of the machine at such a distance that there is no danger of backing into the separator. See page 4.

**Weigher with Stationary Conveyor and Wagon Spout:** This attachment is built entirely of steel. The weighing device is very accurate in registering the amount of grain threshed. The elevator can be lengthened or shortened as desired. The conveyor has a telescope wagon spout at each side of the separator, the spouts being sufficiently long so that they can be swung from one wagon to the other. The flow of grain may be changed from one side of the separator to the other by moving a lever. This attachment is shown on page 6.



Showing drive pulley, belt guide, drive for shoe crank, and steady arm for cylinder shaft

# NEW RACINE AND NEW BELLE CITY THRESHERS



Short elevator and bagger

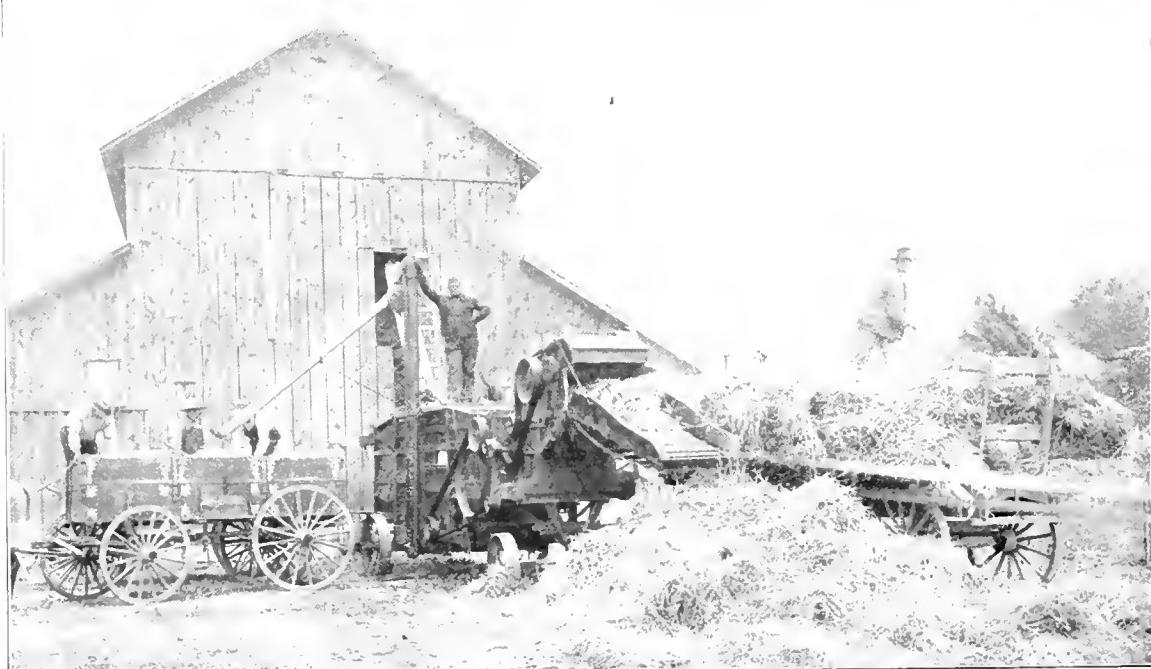
**Short Elevator and Bagger:** This handy device is a small, compact, steel mechanism which is attached to either side of the separator as ordered. This attachment is very popular where the grain is sacked on the ground or in barns.

**Feeders:** New Racine threshers are equipped with the well-known Ruth and Lindsay feeders, the Lindsay being used on the 24x40" thresher only. When these feeders are used, the thresherman is assured of good work. They lessen the labor and cost of threshing by reducing the help generally required, and make possible a uniform feed to the cylinder.

**Perfection Weigher:** The Perfection weigher is made of wood and steel. The elevator is furnished with a long delivery spout. The elevator can be folded for transportation by unfastening the lower end. A rest is provided for the elevator when folded. See cut of weigher on page 5.

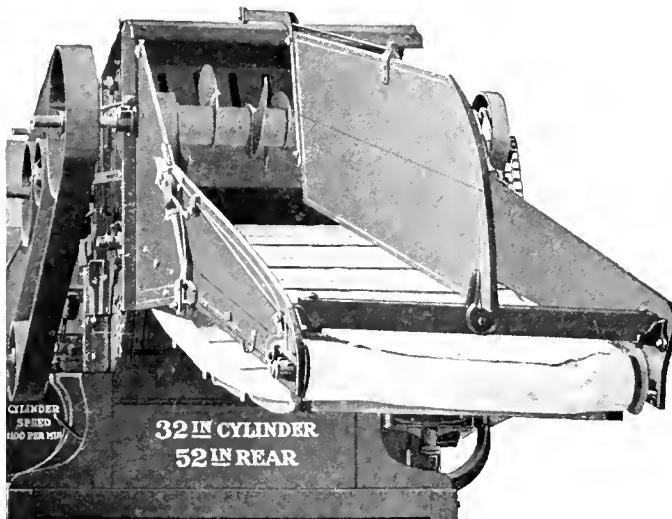
**Wagon Loader with Bagger and Cross Conveyor:** This loader is practically the same as the weigher described at the bottom of the previous page, less the weighing apparatus. See cut on page 7.

**Grain Elevator with Long Swinging Spout:** This attachment is of steel, and extends high above the deck of the separator. The grain is delivered through a long spout into bins, a wagon or sacks on either side of the machine. The spout can be adjusted from the lower end, and remains in the position in which it is placed. It has a cut-off at the lower end to stop the flow of grain while changing the wagons. A rest is furnished to support the elevator when folded. This attachment can be seen on page 9.



The New Racine works satisfactorily under all conditions, good or bad

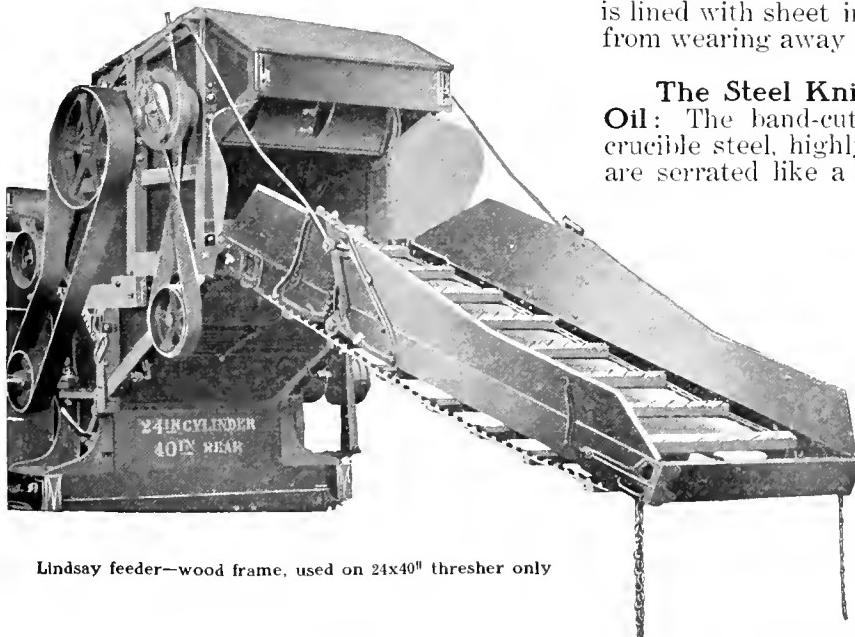
# NEW RACINE AND NEW BELLE CITY THRESHERS



Ruth steel frame

**A Sensitive Governor:** The Pickering governor used on the Ruth feeder is very sensitive. Whenever the feeder cylinder falls below the proper speed, the governor operates the trip lever which stops the raddle until the mass of grain is disposed of by the feeder cylinder. The governor then permits the raddle to run. The Ruth feeder has proved exceptionally satisfactory in controlling or regulating the feed.

**Lindsay Feeder. Sheet-Iron Lining Prevents Wear on Woodwork:** The Lindsay feeder, like the Ruth, is very simply constructed. The frame is of wood, and all lumber is kiln dried. Most of the castings are malleable. The shafting is of cold rolled steel, and not ordinary bar steel. The boxes are babbitted and made in halves so that the wear can be easily taken up. The interior of the feeder is lined with sheet iron to prevent the grain from wearing away the woodwork.



Lindsay feeder—wood frame, used on 24x40" thresher only

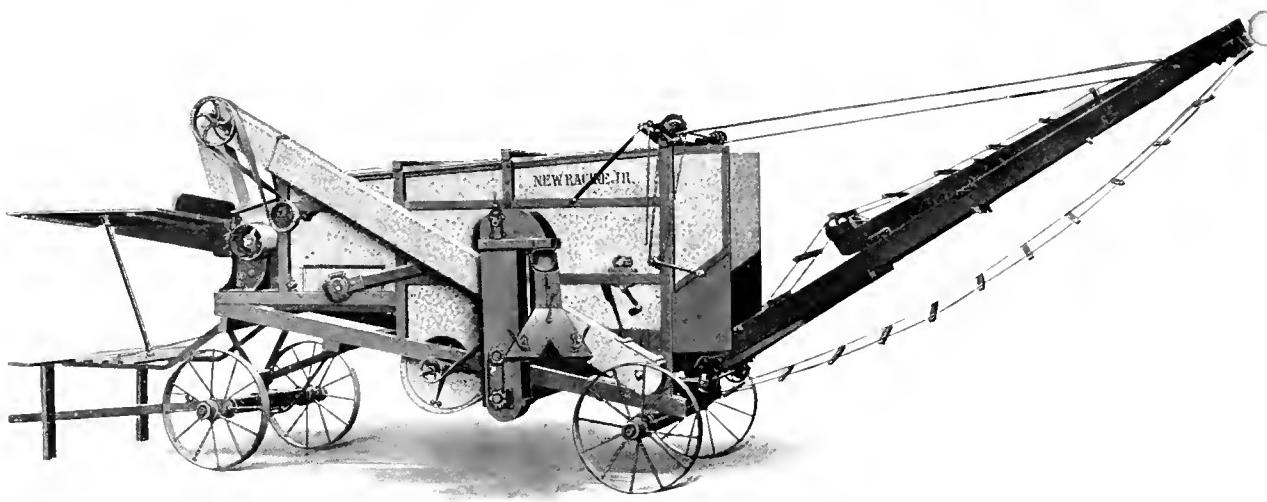
**Ruth Feeder Insures a Balanced Strain on the Cylinder:** Where the Ruth feeder is used, every band is cut and every bundle thoroughly loosened up and pulled apart before it can pass to the separator cylinder. A center dividing board keeps the bundles straight and also keeps two rows of bundles moving toward the cylinder at all times, thus insuring a balanced strain on the cylinder.

**Does Not Slug the Cylinder:** The Ruth feeds the grain without slugging the cylinder or loosening the teeth. Slugging the separator causes a certain amount of grain to be lost in the stack, besides breaking the cylinder teeth and concaves, burning expensive belts, and shortening the life of the threshing outfit.

**The Steel Knives are Tempered in Oil:** The band-cutter knives are of high crucible steel, highly tempered in oil. They are serrated like a sickle, and are much superior in quality to common sickle sections. These knives revolve at the rate of 275 revolutions per minute. An extra set is furnished with each feeder, so as to save loss of time in re-sharpening. While a dull set is being sharpened, a sharp set can be running. The knives of the Lindsay feeder are guaranteed by their manufacturers not to take up straw and not to wind.

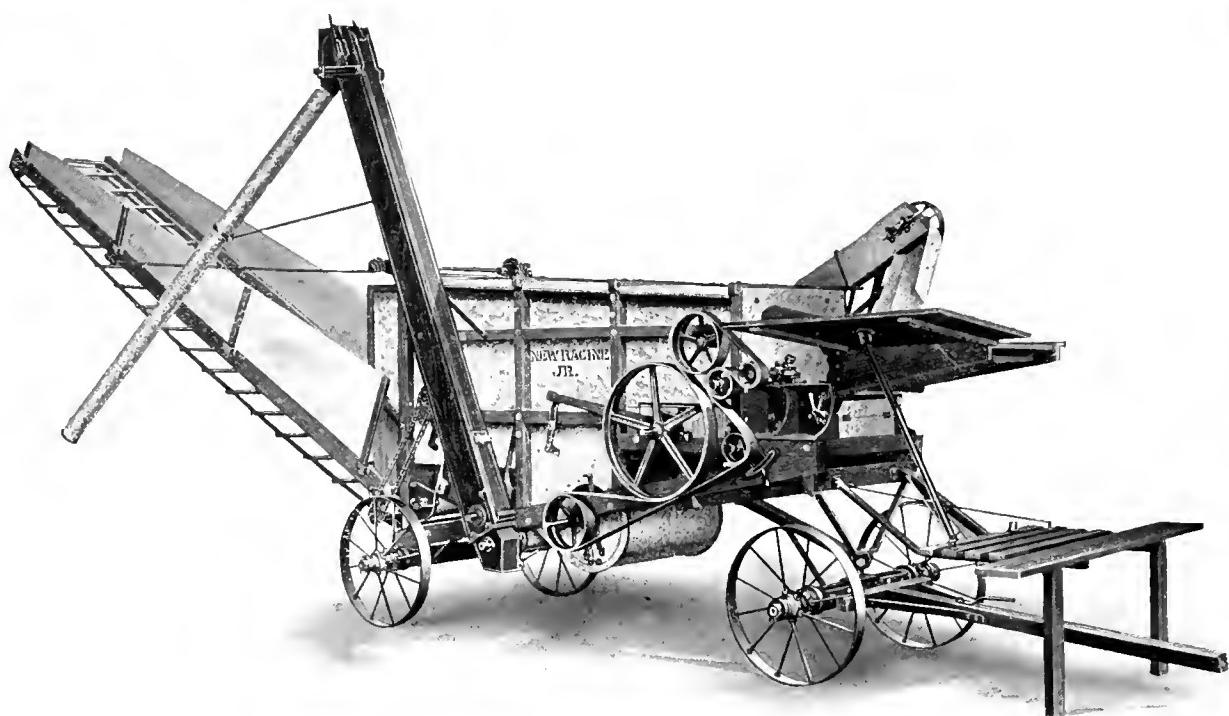
# NEW RACINE AND NEW BELLE CITY THRESHERS

## The New Racine Jr. Thresher



New Racine Jr. thresher, 20 x 32", equipped with hand feed, short elevator and bagger, and plain rake stacker folded.

The New Racine Jr. will thresh 35 to 60 bu. of wheat and 70 to 120 bu. of oats per hour, depending on conditions



New Racine Jr. thresher equipped with hand feed, long elevator with swinging spout and plain rake stacker extended

# NEW RACINE AND NEW BELLE CITY THRESHERS

The New Racine Jr. thresher is practically a duplicate of the larger New Racine threshers, differing only in size, equipment, and the shell, which is of galvanized iron instead of wood. They both have the same interior construction of parts and are both equally satisfactory in their work. It is made in one size only—20" cylinder and 32" rear, and can be had mounted on an individual truck or mounted on special long truck together with an I H C 8 H. P. Titan oil engine. The New Racine Jr. will thresh 35 to 60 bushels of wheat and 70 to 120 bushels of oats per hour, depending on conditions. This small, light thresher has been designed and built to make its owner independent of conditions which are undesirable because they often make large inroads on his profits. For instance—

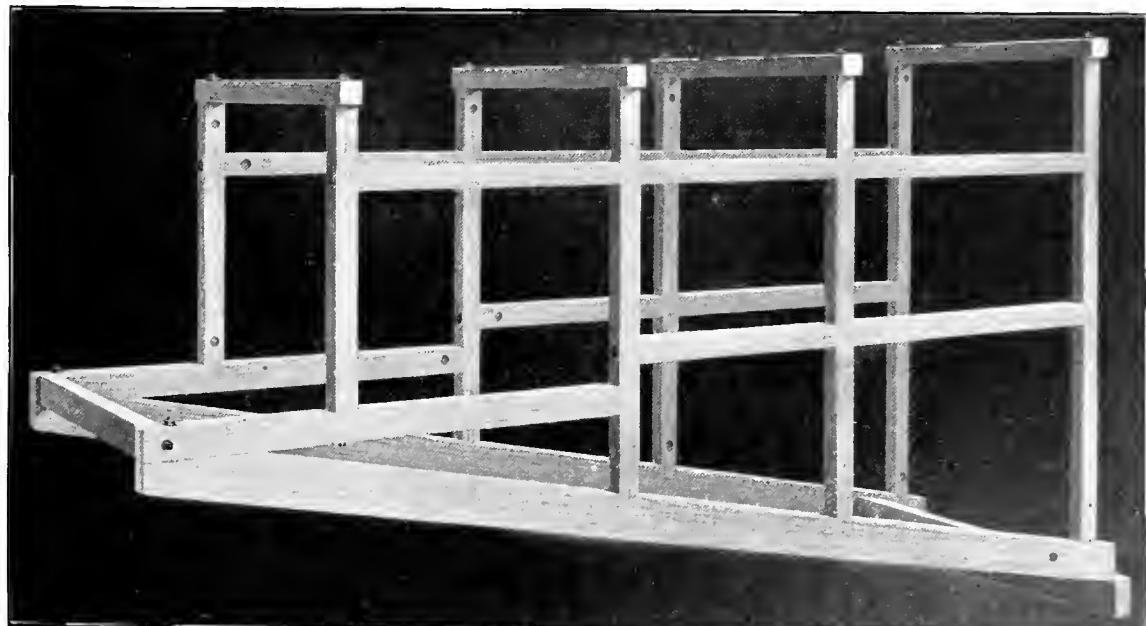
**He Can Thresh as Soon as His Grain is Right:** He can follow the binder with the thresher and get his grain out of the way as soon as it is in the right condition to be threshed. He is not compelled to wait for a busy thresherman.

**If He Sells His Grain, He Can Make Bigger Profits and Can be Sure of Early Shipments:** By threshing early and getting his grain to market while the big majority are waiting for the thresherman this is made possible. He also commands a higher price for his grain, and gets his money quickly.

**He Can Start His Plowing Earlier:** Early threshing means that his land is cleared of the shocks quicker, so that plowing can commence within a short period after the harvest.

**He Saves a Good Sum on the Threshing Operation:** It is not necessary to use a large threshing crew. The farmer can thresh with his own help whenever he is ready. No long waits when a New Racine Jr. is standing in the barn.

**Small Cost:** While the cost of a large thresher is almost prohibitive for a mountainous region, or where small farms are the rule, the New Racine Jr. is exceptionally well suited for individual use without costing more than the small farmer can afford to pay. Where two farmers club together for the purchase of a New Racine Jr. Thresher outfit, the cost of each is still further reduced.



The New Racine Jr. has a substantial frame, rigidly braced. The sides of the thresher are of galvanized iron

# NEW RACINE AND NEW BELLE CITY THRESHERS

**The New Racine Jr. is Light and Convenient:** The New Racine Jr. is comparatively light in weight, is easy to haul around where large outfits cannot penetrate. It can be safely hauled across bridges where the ordinary heavy thresher outfit cannot possibly pass without a great deal of trouble.

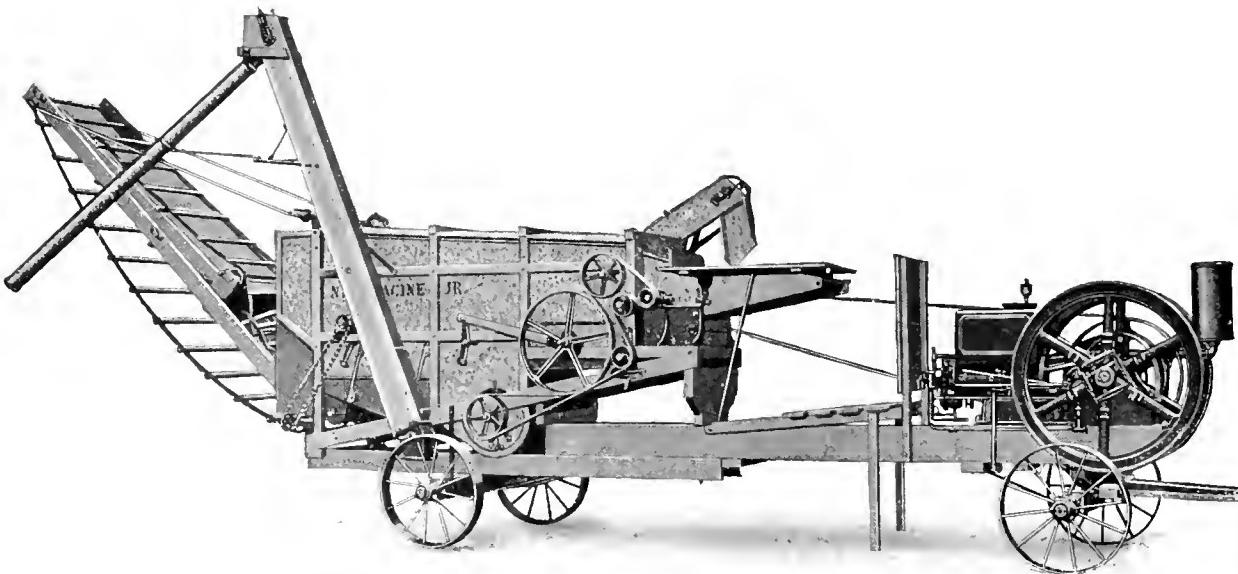
**An Ideal Machine for a Hilly Country:** Its convenience for use in hilly country where roads are not always the best, and sometimes quite steep, is a fact which should strongly appeal to farmers living in these localities.

**The New Racine Jr. Thresher-Engine Combination Outfit:** The New Racine Jr. combination threshing outfit, consisting of a 20 x 32 inch New Racine Jr. thresher mounted on a truck with an I H C Titan 8-H. P. hopper-cooled oil engine is a most practical threshing combination. After the farmer is through threshing, he can dismount the thresher and by moving the rear trucks forward under the main sill, make it a portable engine. The engine can then be hauled around to various jobs where power is required to do the work which the hired man would otherwise be compelled to do.

**The Combination Outfit Saves Fuel:** The I H C Titan 8-H. P. horizontal hopper-cooled oil engine furnished with the New Racine Jr. combination outfit is regularly fitted for operating on such cheap fuels as kerosene, solar oil, gas oil, and distillate down to 39° Beaume. It will operate equally well on gasoline, motor spirit, benzine, and naphtha.

**Engine Equipment:** It is equipped for running with the following accessories—26 inch pulley with a face  $10\frac{1}{4}$  inches wide, one square galvanized fuel tank, one muffler, one tool box, oil can, one can of lubricating oil, and necessary tools.

**Attachments for the New Racine Jr. Thresher. Grain Register:** A grain register which tallies half bushel measures can be furnished.



New Racine Jr. thresher mounted on a combination truck with an I H C Titan 8-H. P. hopper-cooled oil engine. Thresher is equipped with hand feed, wagon elevator with long swinging spout and plain rake stacker

# NEW RACINE AND NEW BELLE CITY THRESHERS

**Short Elevator and Bagger:** A short elevator and bagger can be furnished which attaches to either side of the thresher and on the left side only of the thresher when mounted on the combination truck. This attachment is very popular where the grain is sacked on the ground or in barns.

**Wagon Elevator with Long Swinging Spout:** A wagon elevator with a long swinging spout can also be furnished. This elevator delivers the grain through the long spout into the bin, wagon, or sacks, and to either side of the machine. This spout can be adjusted from the lower end to remain in the position in which it is placed. A cut-off at the lower end stops the flow of grain while changing the wagon.

**Folding Rake Stacker:** The New Racine Jr. can be equipped with an 18-foot rake stacker, which can be easily folded for transportation. It is raised or lowered by means of a convenient windlass on the deck. This windlass can be operated from the ground with one hand. The rake consists of rubber belts to which wood slats are securely riveted. Canvas sides to prevent the straw from blowing over are also furnished with each stacker.

**The New Racine Jr. Can Be Adapted for Pea and Bean Threshing:** With a few changes the New Racine Jr. can be used for threshing peas and beans. The cylinder speed is reduced one-half and special pulleys, concaves, and screens are used. These parts are furnished only on special order and at extra cost.

**Clover Attachment:** A clover attachment consisting of three special concaves each having three rows of corrugated teeth, also a special clover sieve, are furnished on special order only and at extra cost.



The New Racine Jr. thresher is a light, handy little outfit for individual use

# NEW RACINE AND NEW BELLE CITY THRESHERS

## New Belle City Threshers

**Made in Three Sizes:** New Belle City threshers are made in 3 sizes—24x24", 24x32", and 32x40". The thresher bodies for all sizes are 12 feet long.

**A Barn Thresher:** The New Belle City can be used for barn threshing as the dimensions of the machine are favorable to indoor work.

**Concave Equipment, Grate and Concave Teeth:** The New Belle City thresher is equipped with 3 concaves—2 with teeth and 1 blank—and 1 cast grate. They are very effective in separating the grain from the heaviest straw. They fit accurately into the concave circles, and are raised or lowered by a ratchet conveniently placed near the feeder. The filled concaves have two rows of teeth. The blank concaves are made so that two more rows of teeth can easily be inserted if desired. Each tooth is secured by a lock nut and spring-lock washer.

**Cylinder:** The cylinder has a diameter of 18 inches including the teeth. It is impossible for the cylinder to work loose because of the manner of securing the cylinder heads to the shaft by lock nuts.

**Cylinder Teeth are of Tough Steel:** The teeth are arranged in 12 rows, and properly spaced to do the best work. Made of carbon steel, they are very tough and durable. The teeth pass through square holes in the cylinder shell, and are held on the inside by nuts and spring lock washers.

**Straw Rakes Give a Positive Movement to the Straw:** The straw rakes fit closely together and, when the machine is working, the entire rake portion of the machine is in motion. They are attached at the front end of the machine by maple boxes to a crank shaft that has a separate arm for each rake. The crank gives a separate motion to each rake, so that an upward and outward motion is imparted to the straw, which passes out in a thin, even layer, without clogging or bunching.

**Conveyor and Extension:** The conveyor consists of a heavy corrugated galvanized iron pan, and a special "No Choke" conveyor sieve built the full width of the machine. The pan, being directly under the cylinder and concaves and the front end of the grain board, collects the grain as it falls and passes it on to the conveyor sieve. The possibility of overloading the shoe is thus forestalled, the cleaning done better, and the capacity of the thresher increased.

The conveyor extension is 15 inches long, and is made so that the unthreshed heads of grain drop into the tailings auger, whence they are once more brought to the cylinder and concaves.

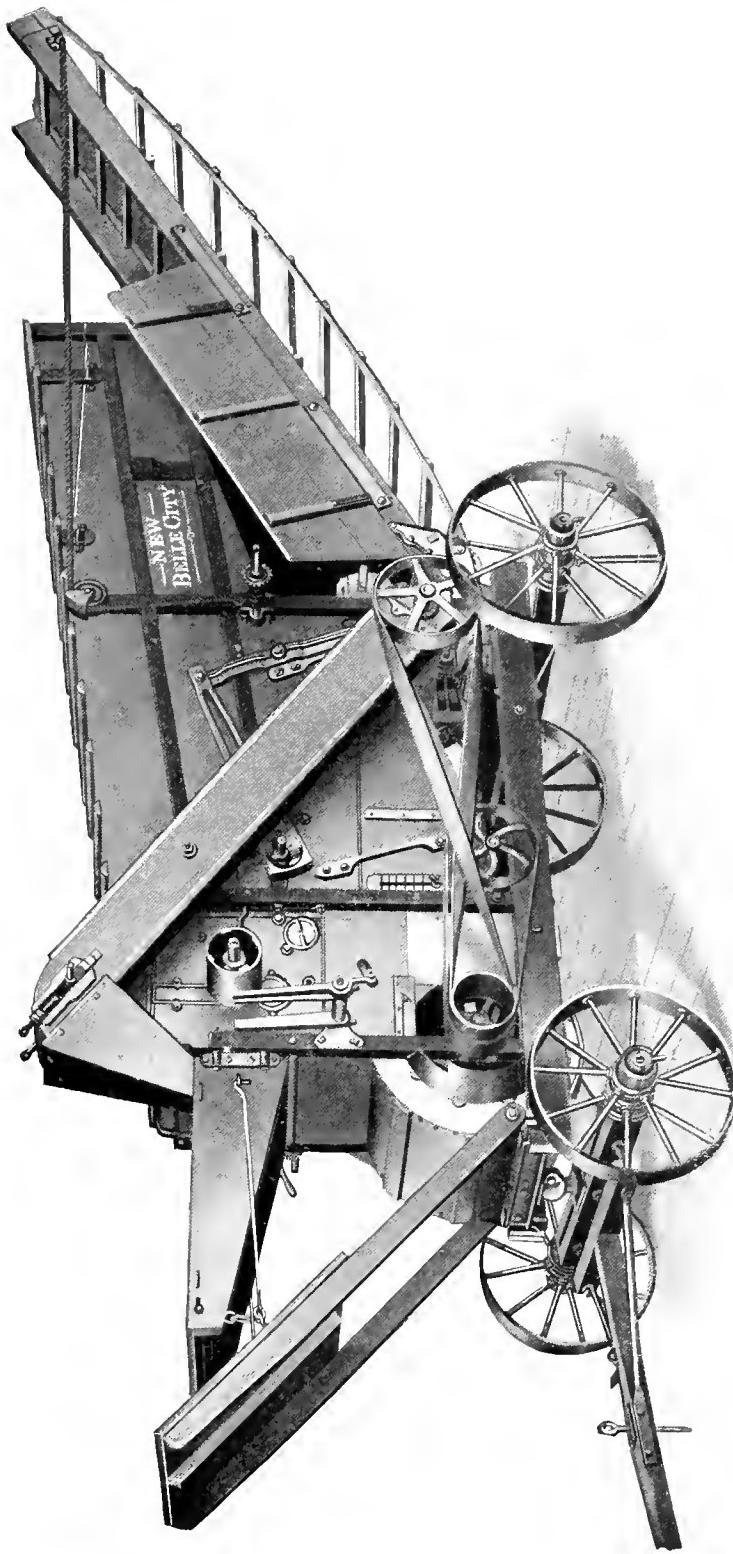


Conveyor and Shoe

**Shoe:** The shoe is of the end-shake pattern, and receives its motion from two eccentrics on the fan shaft, to which it is connected by two wooden pitmans, one for each side. Two rods hold the bottom of the shoe, which is removable.

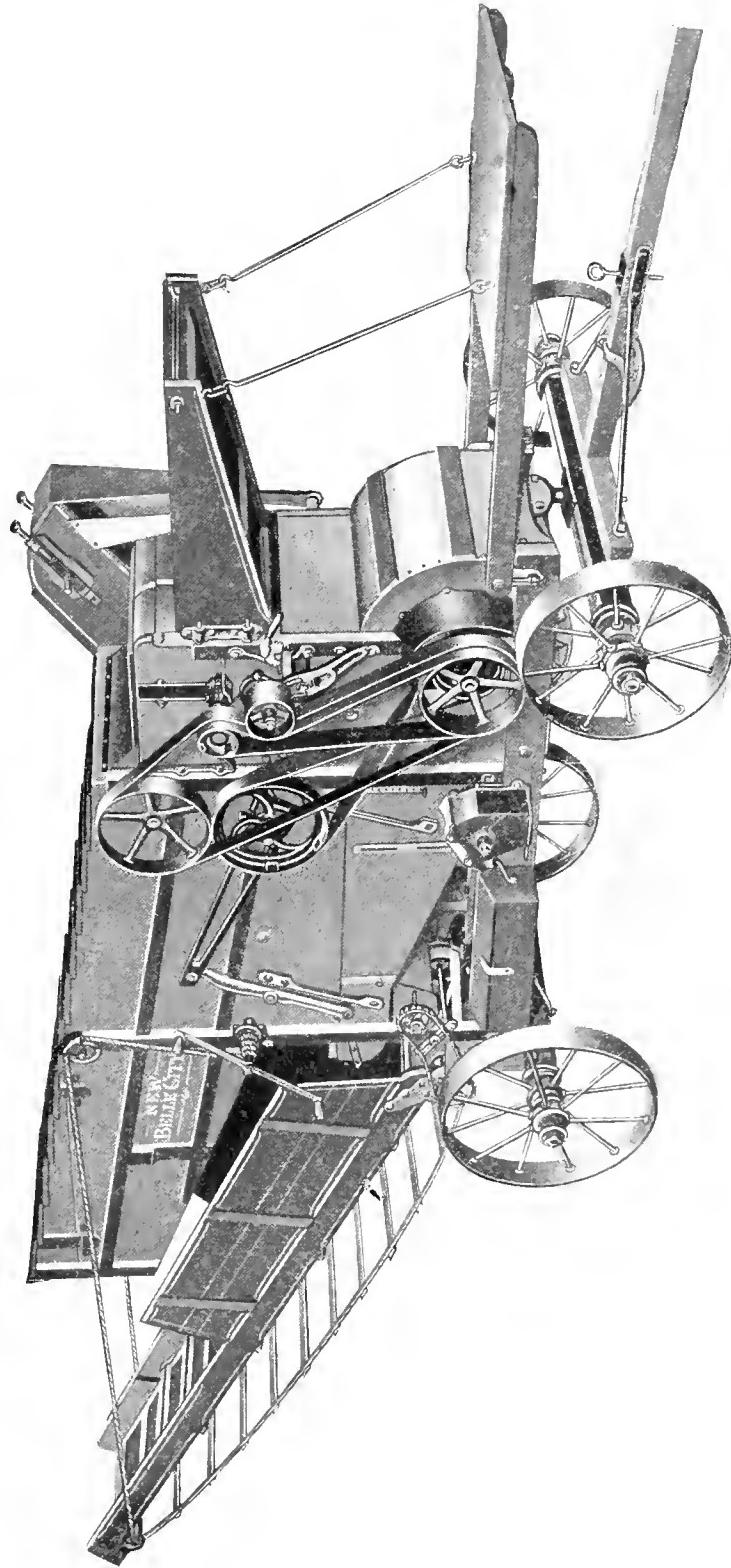
# The New Belle City Is Ideal for Hilly Regions

Easily Transported over Narrow Mountain Roads



Right hand side of New Belle City Thresher showing hand feed and folding rake stacker. Note low elevator and that the rear of the top can be folded forward to reduce the height of the machine for entering a barn. Ready for transportation.

# The New Belle City Is a Low-Down Thresher Can Be Conveniently Operated in Any Ordinary Barn



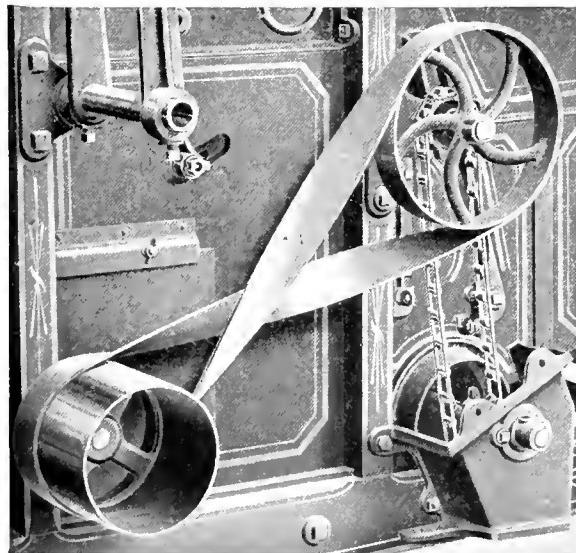
Left hand side of New Belle City Thresher with hand feed and folding rake stacker Note practical belting arrangement.  
The low elevator and folding top make the New Belle City an ideal barn thresher. Set for action

# ■ NEW RACINE AND NEW BELLE CITY THRESHERS ■

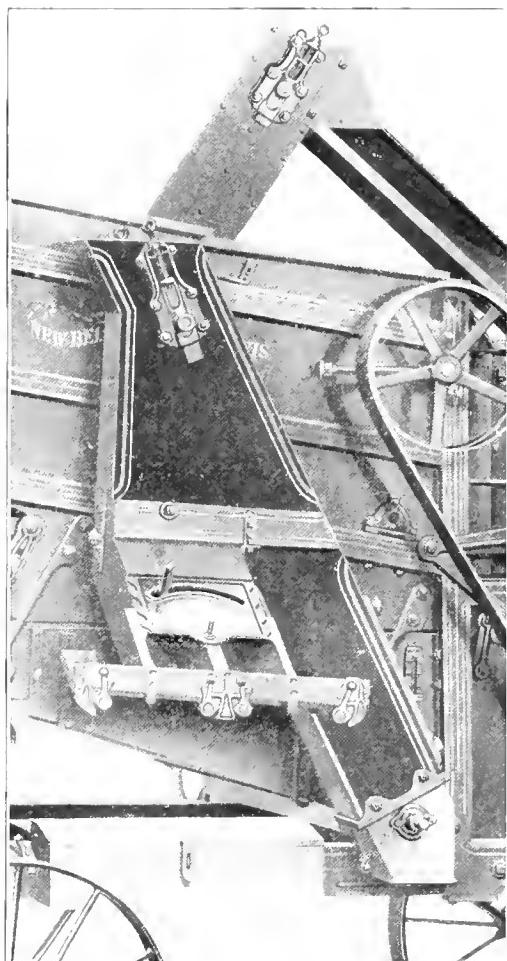
**Short Elevator and Bagger:** This attachment can be used in place of the long grain elevator. Where it is not desirable to place the grain directly in a wagon box, it is found very convenient. The bag can be easily clamped on to the spout. A shut-off lever directly over the spout enables the operator to change the course of the grain from one bag to the other—a very saving device, as it prevents loss of grain when changing the bag.

This bagger is attached to the left side and is driven directly from the grain auger shaft and consequently, outside chains are unnecessary. The spout section is so hinged that it can be easily detached when moving.

**Right and Left Grain Delivery Attachment:** The right and left grain delivery attachment is furnished with all sizes of New Belle City threshers when the regular grain delivery attachments are not desired. By crossing the belt or running it straight the grain can be delivered at the right or left. This is of great advantage when threshing in close quarters.



The right and left grain delivery attachment is very convenient

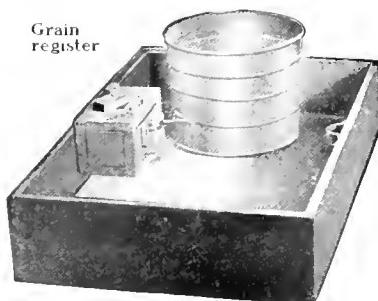


Short elevator and bagger

The thresher can be set as close to the mow as desired without interfering in the least with the grain delivery.

**Folding Rake Stacker is Made in Two Sizes:** The folding rake stacker is made in 18 and 24-foot lengths, and the full width of the thresher. It is raised or lowered by a windlass over the rear axle. The straw apron consists of two strong belts to which wood slats are riveted 12 inches apart.

# NEW RACINE AND NEW BELLE CITY THRESHERS



**Grain Elevator Delivers to Both Sides of Machine as Desired:** The grain elevator is built high enough so that the swinging spout can deliver grain on both sides of the machine. A sprocket chain equipped with wooden buckets and lined with sheet iron, lifts the grain to the spout. When ordered without the grain elevator, a cast-iron grain box is provided, which is, in fact, the lower end of the elevator.

**Sieve Equipment:** The "No Choke" sieves used in the New Belle City do their work easily, unaffected by different conditions of grain and straw. Being firmly fixed, they require very little attention. They can be placed in different positions, the changes being made from the outside of the shoe. Each machine is furnished with the following sieves: 1 "No Choke" oat sieve; 1 "No Choke" wheat, barley, and rye sieve; 1 perforated zinc wheat sieve; 1 wire flax sieve, and 1 wire shoe screen. The sieves have a length of 38 inches and are made the full width of the body of the machine. Special sieves can be supplied.

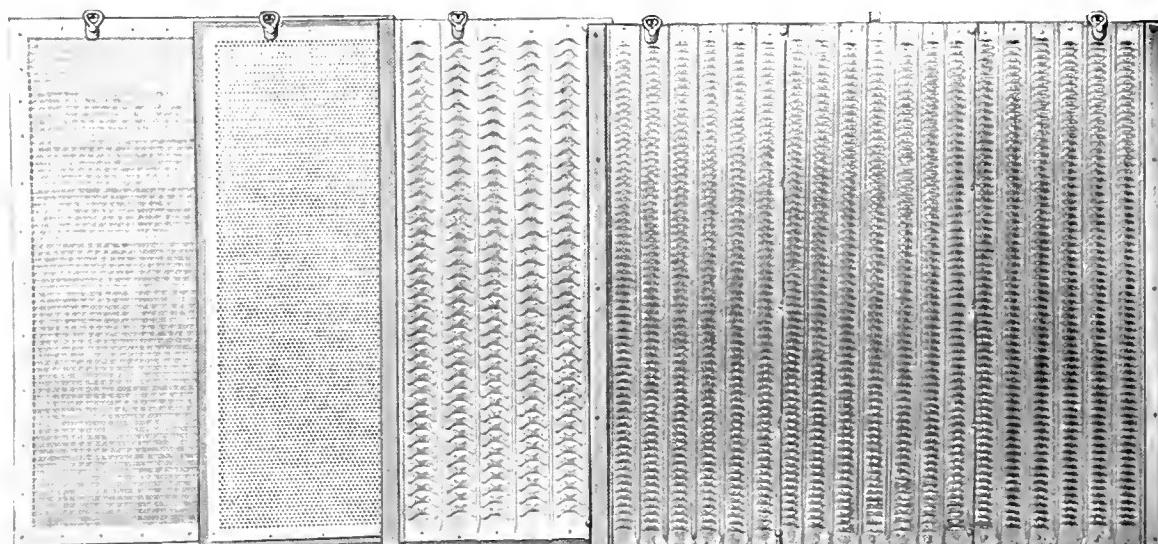
**Grain Register and Grain Measure:** The grain register is very conveniently used when only the grain box on the thresher is used. This device is accurate and easy to adjust. Light and durable galvanized half-bushel grain measures can be furnished at a nominal cost.

**Regular Thresher Equipment:** New Belle City threshers are regularly equipped for hand feed. A folding rake stacker; short elevator and bagger; and grain elevator with long swinging spout, are furnished when specified on order. The attachments ordered with the machine govern the price of the outfit.

**Threshes Peas, Beans, and Peanuts Satisfactorily:** With a few changes and extra attachments, the New Belle City can be made to thresh peas, beans, and peanuts in a highly satisfactory manner.

**When Ordering:** Be sure to state clearly what size of machine is wanted, cylinder and gear, also the speed of the engine and size of the engine drive pulley. State also whether trucks, 18 or 24-foot rake stacker, grain elevator, or bagger are desired with the machine.

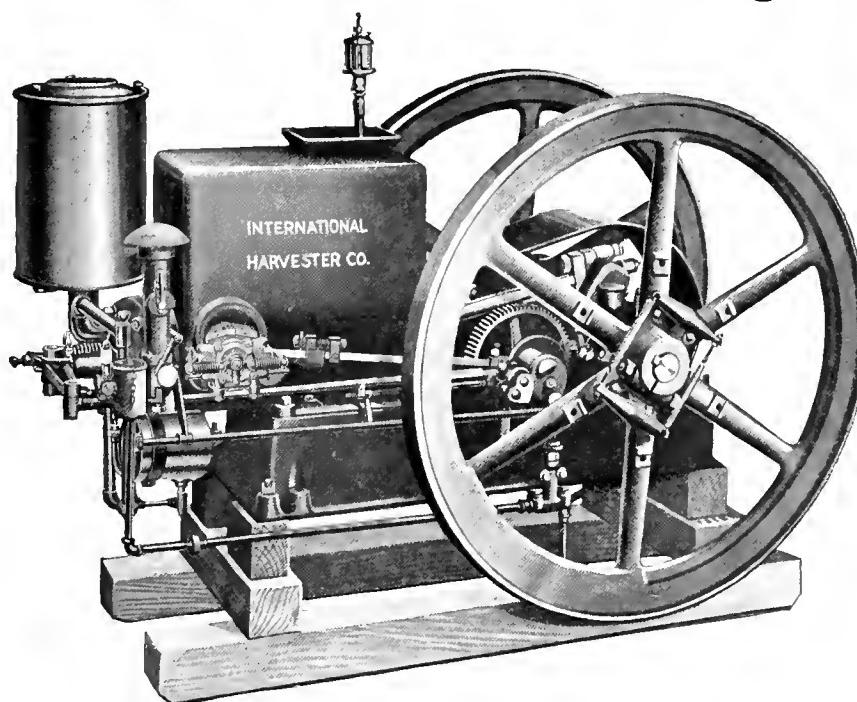
In ordering special attachments give the size of the cylinder with the number of the machine which will be found on the front end directly below the cylinder, and stamped in the front end of the main sill.



New Belle City thresher sieves showing different meshes

# NEW RACINE AND NEW BELLE CITY THRESHERS

## Titan Hopper-Cooled Oil Mounting Engine



Titan Hopper-Cooled Oil Mounting Engine

Titan hopper-cooled oil mounting engines are designed to meet the demand for an engine that can easily be mounted on a farm truck, bob sled, or skid, making a portable outfit, or in connection with any special machinery such as well drills, concrete mixers, saw rigs, portable pumping plants, and the like. These engines are especially adapted for such work on account of the compactness of the outfit, their moderate weight, and the small amount of water required for cooling. The hopper-cooled feature also does away with much of the danger of the cylinder or jacket being cracked by freezing, because the hopper is open at the top, thus allowing the freezing water to expand. Hot water can be poured in to facilitate starting.

The engine is the same as the well-known Titan stationary horizontal hopper-cooled oil engine, except that the engine is shipped without sub-base, and mounted on temporary shipping skids. It is regularly fitted for operating on kerosene, solar oil, gas oil, and distillate down to 39°, but will operate equally well on gasoline, benzine, or naphtha.

**Equipment**—Titan hopper-cooled oil mounting engines are equipped complete for running with the following accessories: One regular size pulley, one square galvanized fuel tank, magneto, one muffler, one tool box, oil can, oil, and necessary tools.

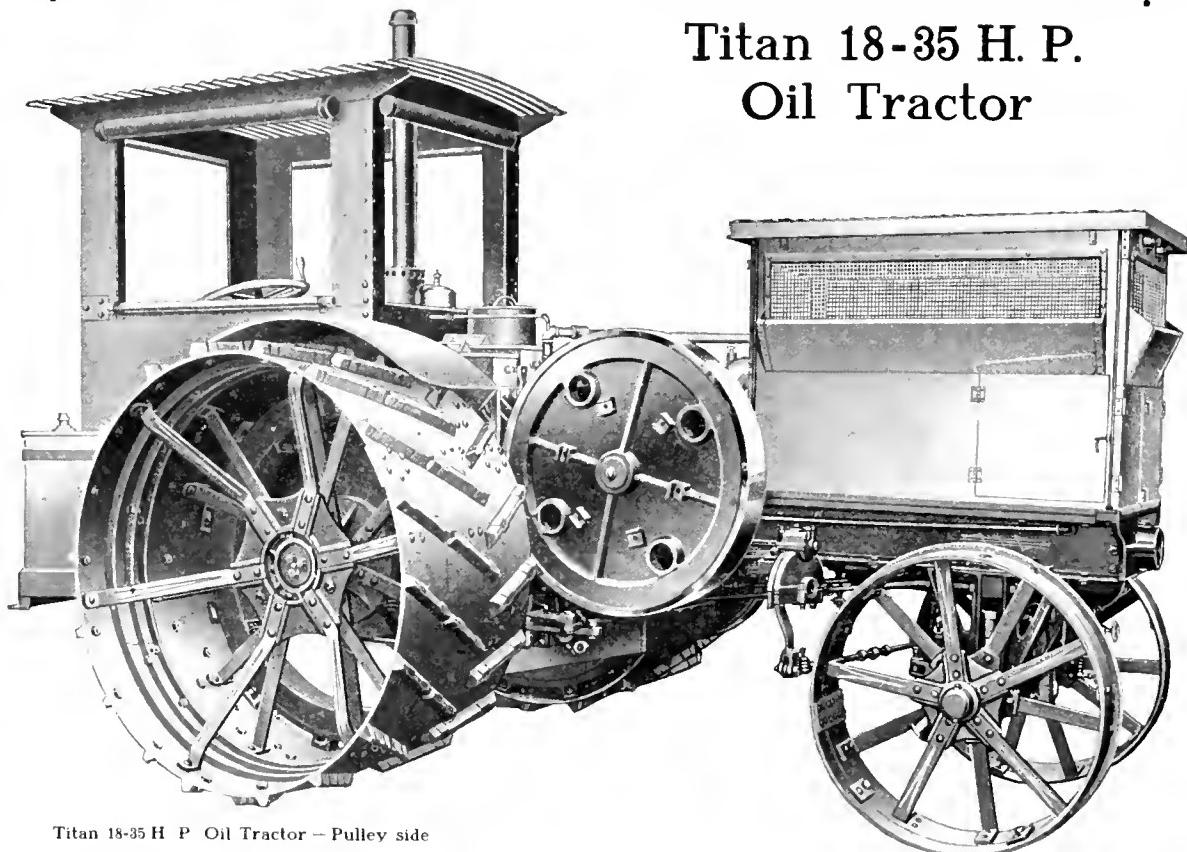
**Special Accessories**—Special size pulleys, friction clutch pulleys, etc., can be furnished on special order.

H. P.	Speed, R. P. M.	Regular Pulley		Flywheel		Capacity of Hopper, Gallons	Capacity of Fuel Tank, Gallons	Base Measures, Inches		Approximate Shipping Weight, Pounds
		Diameter, Inches	Face, Inches	Diameter, Inches	Face, Inches			Width of Frame	Length of Frame	
4	450	12	8 <sup>1</sup> / <sub>8</sub>	33	2 <sup>1</sup> / <sub>2</sub>	6	12	15 <sup>1</sup> / <sub>4</sub>	33 <sup>5</sup> / <sub>8</sub>	1230
6	390	16	12 <sup>1</sup> / <sub>4</sub>	40 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	12	12	17	40 <sup>1</sup> / <sub>4</sub>	1665
8	375	18	10 <sup>1</sup> / <sub>4</sub>	45	3	16	15	20	43 <sup>3</sup> / <sub>4</sub>	2275
10	350	20	10 <sup>1</sup> / <sub>4</sub>	49 <sup>1</sup> / <sub>2</sub>	3	20	15	20	46 <sup>1</sup> / <sub>4</sub>	2565
12	300	24	14 <sup>1</sup> / <sub>4</sub>	54	3	22	15	21 <sup>3</sup> / <sub>4</sub>	51 <sup>3</sup> / <sub>4</sub>	2800

NOTE—Other sizes and types of Titan engines from 1 to 50 H. P.

# ■ NEW RACINE AND NEW BELLE CITY THRESHERS ■

## Titan 18-35 H. P. Oil Tractor



Titan 18-35 H. P. Oil Tractor — Pulley side

The Titan 18-35 H. P. tractor is of a medium size with many new, exclusive features that secure special advantages. It is light in weight for its power without sacrificing drawbar power. Piston and cylinder are enclosed in a dust-tight crank case.

For road work, the two-speed transmission and automobile steer gives it a decided advantage, and the lighter weight permits the crossing of bridges unsafe for heavier tractors. The speed regulator is controlled by a crank in the cab.

A self-starting device consisting of a complete  $\frac{3}{4}$  H. P. gasoline engine and air-compressor power plant, and an air-starting system makes turning the engine over by hand unnecessary.

The tractor operates on kerosene, distillate, solar oil, gas oil, motor spirits, naphtha or gasoline.

**Equipment:** Completely equipped ready to run including friction clutch pulley, batteries, magneto, front wheel extensions, oil can, can of lubricating oil, and necessary tools.

**Special Accessories:** Kerosene headlight, acetylene headlight, special size pulleys, and 10-inch rear wheel extensions can be furnished at extra cost.

Rated Horse Power of Engine at 425 r. p. m.	High Speed of Trac- tor miles per hour	Low speed of Trac- tor miles per hour or — miles per hour	Speed of Engine revolutions per minute	Cylinders		Pulley		Front Wheels		Drive Wheels		Capacity of gaso- line tank, gallons	Capacity of kero- sene tank, gallons	Capacity of water tank, gallons	Total length, inches	Total width, inches	Total height, inches	Approximate road weight, pounds, all tanks filled	Approximate ship- ping weight, lbs.
				Bore, inches	Stroke, inches	Diameter inches	Face, inches	Diameter inches	Face, inches	Diameter inches	Face, inches								
18-35	3.65	2.13	425	8	10	24	12 $\frac{1}{2}$	38	9	63	22	10	43 $\frac{3}{4}$	85	184 $\frac{1}{2}$	96	123	16850	15700

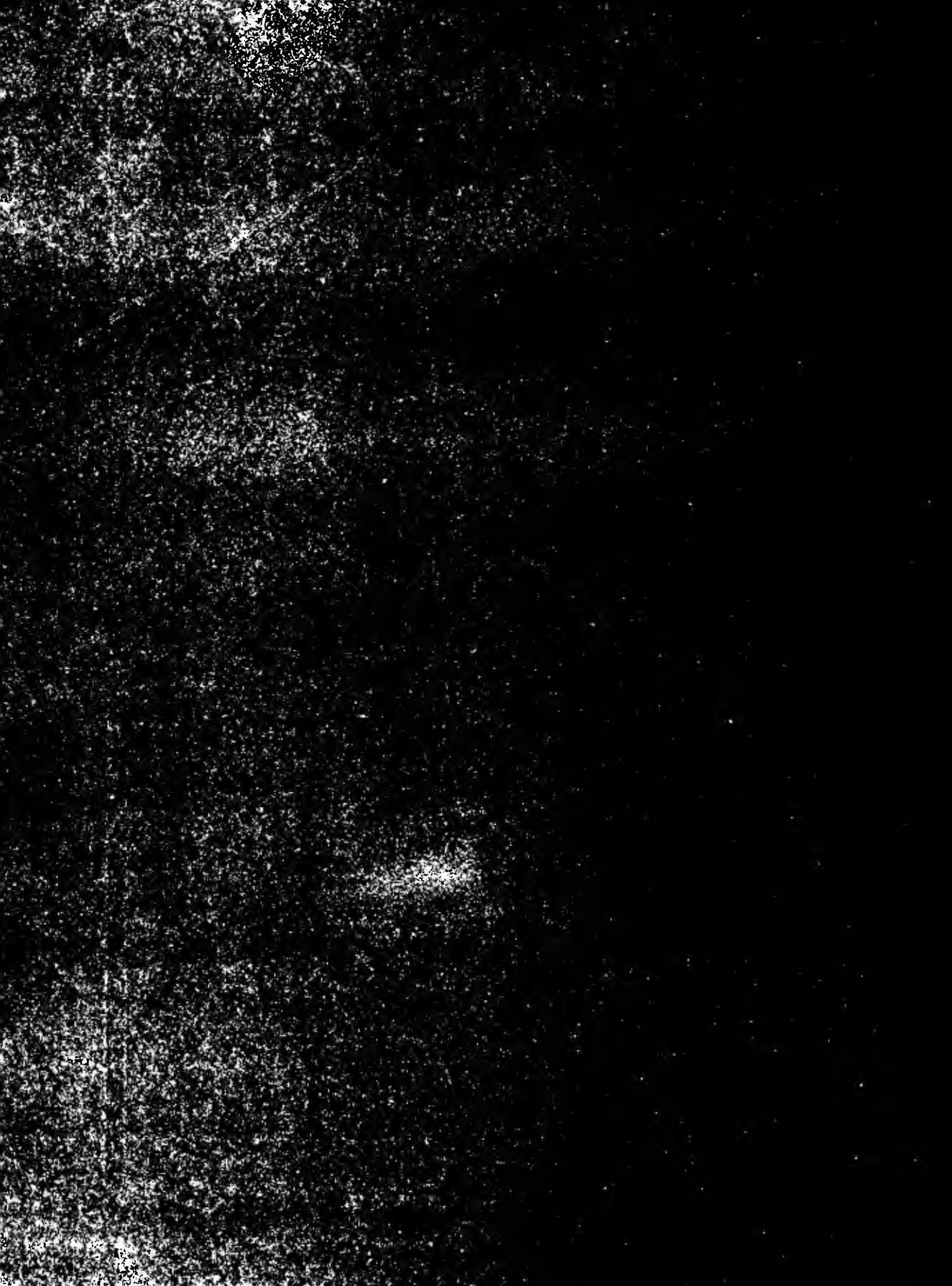
NOTE—Other types and sizes of Titan tractors from 12-25 H. P. to 30-60 H. P.

**BRANCH HOUSES  
INTERNATIONAL HARVESTER COMPANY OF AMERICA**  
(INCORPORATED)



ABERDEEN, S. D.	DETROIT, MICH.	LINCOLN, NEB.	RICHMOND, IND.
ALBANY, N. Y.	DUBUQUE, IOWA	LITTLE ROCK, ARK.	RICHMOND, VA.
ATLANTA, GA.	EAST ST. LOUIS, ILL.	MADISON, WIS.	ROCKFORD, ILL.
AUBURN, N. Y.	EAU CLAIRE, WIS.	MANKATO, MINN.	ST. CLOUD, MINN.
AURORA, ILL.	ELMIRA, N. Y.	MASON CITY, IA.	ST. JOSEPH, MO.
BALTIMORE, MD.	EVANSVILLE, IND.	MEMPHIS, TENN.	ST. LOUIS, MO.
BIRMINGHAM, ALA.	FARGO, N. D.	MILWAUKEE, WIS.	SAGINAW, MICH.
BISMARCK, N. D.	FT. DODGE, IA.	MINNEAPOLIS, MINN.	SALINA, KAN.
BOSTON, MASS.	FT. WAYNE, IND.	MINOT, N. D.	SALT LAKE CITY, UTAH
BUFFALO, N. Y.	GRAND FORKS, N. D.	NASHVILLE, TENN.	SAN FRANCISCO, CAL.
CEDAR FALLS, IOWA	GRAND RAPIDS, MICH.	NEW ALBANY, IND.	SIOUX CITY, IOWA
CHARLOTTE, N. C.	GREEN BAY, WIS.	NEW ORLEANS, LA.	SIOUX FALLS, S. D.
CINCINNATI, OHIO	HARRISBURG, PA.	OGDENSBURG, N. Y.	SOUTH BEND, IND.
CLEVELAND, OHIO	HELENA, MONT.	OKLAHOMA CITY, OKLA.	SPOKANE, WASH.
COLUMBIA, S. C.	HUTCHINSON, KAN.	OMAHA, NEB.	SPRINGFIELD, ILL.
COLUMBUS, OHIO	INDIANAPOLIS, IND.	PARKERSBURG, W. VA.	SPRINGFIELD, MO.
CONCORDIA, KAN.	JACKSON, MICH.	PARSONS, KAN.	TERRE HAUTE, IND.
COUNCIL BLUFFS, IA.	JACKSONVILLE, FLA.	PEORIA, ILL.	TOLEDO, OHIO
CRAWFORD, NEB.	KANKAKEE, ILL.	PHILADELPHIA, PA.	TOPEKA, KAN.
DAVENPORT, IA.	KANSAS CITY, MO.	PITTSBURGH, PA.	WATERTOWN, S. D.
DENVER, COLO.	KNOXVILLE, TENN.	PORTLAND, ORE.	WICHITA, KAN.
DES MOINES, IA.	LANSING, MICH.	QUINCY, ILL.	WINONA, MINN.

For catalogues or special information see IHC dealer or write nearest branch house





Sold by

**INTERNATIONAL HARVESTER COMPANY OF AMERICA**

(Incorporated)

CHICAGO

U S A

*For further information write International Harvester Company of America  
Chicago, Ill., or write our nearest branch house.*

BRANCH HOUSES  
INTERNATIONAL HARVESTER COMPANY OF AMERICA



